

EXHIBIT 2

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

IN RE HIGH-TECH EMPLOYEE
ANTITRUST LITIGATION

THIS DOCUMENT RELATES TO:
ALL ACTIONS.

Master Docket No. 11-CV-2509 LHK

SUPPLEMENTAL EXPERT REPORT OF PROFESSOR KEVIN M. MURPHY

June 21, 2013

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I. INTRODUCTION

1. I have been asked by Counsel for Defendants to respond to the Supplemental Expert Report of Edward E. Leamer, Ph.D. (“Leamer Supplemental Report”)¹ and to consider whether Dr. Leamer’s analysis answers the Court’s question whether “Defendants’ salary structures were *so* rigid that compensation for employees with entirely different titles would necessarily move together through time such that a detrimental impact to an employee with one job title would necessarily result in an impact to other employees in entirely different jobs (*i.e.*, that any impact would ripple across the entire salary structure).”² I have concluded that Dr. Leamer’s report contains fundamental errors of economics and statistics, and provides no evidence that the Defendants had such rigid compensation structures that suppressing wages of some employees would necessarily suppress wages of all or nearly all members of the proposed class.

2. First, Dr. Leamer’s analysis is based on averages of compensation by job titles and average compensation for all job titles in the proposed class. He does not analyze the compensation of individual employees, so he ignores differences in compensation and compensation changes among employees with the same job title. Thus, his analysis cannot demonstrate the first required link in his theory of how the challenged conduct had class-wide impact, *i.e.*, that a raise to employees who receive a cold call would increase compensation even to other employees with the same job title.

3. Second, correlations of average compensation by job title with overall average compensation for the proposed Technical Class cannot show that raises for some employees necessarily would result in raises for some or all.

4. Third, neither his correlation analysis nor his regression analysis can distinguish a “somewhat rigid” compensation structure from one that is not. In particular, Dr. Leamer falls victim to two well-known statistical fallacies in constructing his regression model. In combination, these two fallacies virtually guarantee that Dr. Leamer will obtain the type of

¹ *Supplemental Expert Report of Edward E. Leamer*, May 10, 2013 (“Leamer Supplemental Report”).

² In Re: High-Tech Employee Antitrust Litigation, *Order Granting in Part, Denying in Part Motion for Class Certification* (April 5, 2013) (“Order”) at 36.

regression results that he does, even if there is zero effect of an individual's pay on the pay of others.

5. Fourth, Dr. Leamer does not establish that the proposed class is properly defined.

6. Finally, Dr. Leamer did not address the Court's invitation to "improve the accuracy" of the Conduct Regression that he offers as evidence of "generalized" impact and damages, and thus did not respond to the lack of precision of his estimates.³

II. THE VARIATION IN INDIVIDUAL COMPENSATION, WHICH DR. LEAMER'S ANALYSES IGNORE, SHOWS THAT A RAISE FOR ONE OR SOME DOES NOT NECESSARILY CAUSE A RAISE FOR ALL OR NEARLY ALL

7. The question that I consider relevant for evaluating the Court's concerns about Plaintiffs' claims is whether a change in compensation at one point in the compensation structure would cause a change in compensation for the class as a whole. This is different than whether average compensation for different job titles moves together, since co-movement could simply reflect the response to common factors that have nothing to do with Dr. Leamer's "sharing" theory. Co-movement, which is the focus of Dr. Leamer's empirical analysis, is not informative as to how compensation of different class members would differ absent the alleged cold-calling agreements. To illustrate the difference between correlation (or co-movement) and causation, the use of umbrellas and windshield wipers in a city are highly correlated, but neither causes the other. Rather, they are both caused by a common external factor: rain.

A. Dr. Leamer Focuses on Correlations of Average Compensation for Job Titles with Overall Average Compensation and He Does Not Analyze the Substantial Variation in Compensation Changes for Individual Employees

8. Dr. Leamer's empirical analysis focuses on whether changes in average compensation for various job titles are correlated with movements in the average compensation level for the proposed class as a whole. He does not examine whether changes in compensation at the individual level, which is where the initial impact of any cold call would occur, necessarily cause

³ Order at 42-43 and fn. 15.

changes in compensation for all or nearly all employees in the same job title or for the proposed class as a whole.

9. Dr. Leamer offers no empirical evidence that demonstrates the type of propagation that Plaintiffs postulate—either across individuals within the same job title or across job titles. He acknowledged that the compensation data available to him could be studied at the individual level. But he chose to work with “title averages,” claiming that “the individual data is likely to be dominated by forces that operate at the individual level” and that “[a]veraging across individuals in a title can average out the individual effects.”⁴ However, it is precisely those forces and individual effects that determine whether, as the Court asked, “Defendants’ salary structures were *so* rigid that compensation for employees with entirely different titles would necessarily move together through time such that a detrimental impact to an employee with one job title would necessarily result in an impact to other employees in entirely different jobs (*i.e.*, that any impact would ripple across the entire salary structure).”⁵

10. The amount of variation in compensation of individual employees over time determines whether a firm has to adjust compensation of a large number of individuals if it chooses to increase the compensation of an individual who receives a cold call. If individual pay were always identical for individuals within a job title, or if compensation were determined by a fixed formula (e.g., based only on objective factors such as level of tenure in the job with no deviation permitted), then a change in compensation for one individual would require a change for other individuals in that same job (assuming that the firm does not respond when an individual receives a cold call by promoting her to a better paid job title). In contrast, if, as a regular matter, there is wide variation in compensation changes for individuals in the same job, one cannot presume (as Dr. Leamer appears to do) that an increase in compensation for one employee in response to a cold-call would cause an increase in compensation for all employees with the same job title, because the firm has sufficient flexibility to respond to outside pressure on compensation of a given individual (such as pressure resulting from a cold call) to adjust compensation for that employee without changing compensation for other employees, even those

⁴ Leamer Supplemental Report ¶19.

⁵ Order at 36.

in the same job title. For example, the firm can provide one-time retention bonuses or stock grants, increase base salary within the existing salary range for that title, or promote the individual to another job title with a higher salary. Moreover, the firm would have an incentive to respond in one of these other ways rather than adjust compensation broadly, since doing so would allow the firm to minimize its labor costs.

11. Data on compensation of individuals, which I discuss below, show that, consistent with that flexibility, there is substantial divergence in compensation of individuals within a job title. In particular, the Defendants routinely differentiate increases (and decreases) in pay across employees. Even within individual job titles, annual compensation changes at the individual level show a mixture of large and small increases and decreases at a given point in time. While compensation received by individual employees at a firm tends to be positively correlated over time, there is substantial individualization of pay.

12. The existence of positive correlations does not support Dr. Leamer's "sharing" theory, because it reflects the fact that there are many common factors that can cause similar adjustments in employee compensation firm wide. Dr. Leamer himself identifies such a factor when he argues that "the Pixar data are *contaminated* by very large bonuses for producers and directors in 2002 and 2006,"⁶ although he fails to acknowledge that this type of "contamination" is exactly what his correlation analysis reflects. Similarly, Intel's decision to freeze salaries in 2009⁷ is a common factor that would have affected compensation levels and changes in that year. Apple's tremendous success in recent years and Google's transformation from a relative newcomer to a well-established tech firm fall into a similar category. However, while compensation received by individual employees is affected by common factors, it also is affected by other factors that result in substantial "uncommon" changes over time.

⁶ Leamer Supplemental Report ¶67.

⁷ Agam Shah, "Intel Freezes Salaries from CEO on Down," Computerworld, March 23, 2009.

B. There Is Sufficient Variation in Compensation Across Individuals With The Same Job Title That One Cannot Assume That Adjusting One Employee's Compensation Requires Adjusting Others

13. I performed several analyses to understand the extent to which compensation of individual employees moves together. Exhibit 1 displays the cumulative compensation histories for all employees within a single selected job title at each of the Defendants.⁸ These exhibits are meant simply to illustrate the type of variation in compensation of individual employees that is present throughout the data (and that I summarize more systematically in my subsequent exhibits).

14. Exhibit 1 shows that individuals who start with the same job title have very different cumulative changes in compensation over time, and can end up with very different compensation in 2010 compared to 2005. This substantial divergence in compensation over time is fully consistent with correlation levels that are “high.”⁹ In other words, correlated time series can diverge substantially, and can have substantial year-to-year changes in levels.

15. Exhibit 2 examines compensation changes between 2007 and 2008 (years in the middle of the class period) in the top three job titles at each Defendant (based on number of employees in 2007). The exhibit summarizes the large annual variation in changes in compensation for individuals who start in the same job.¹⁰ For example, compensation changes for Adobe's employees with the title of [REDACTED] vary in sign and magnitude, with some individuals receiving large increases (more than 25 percent) and others

⁸ I selected the job titles by restricting the data to class members who remained employed by the Defendant in that job title in each year from 2005 through 2010 (2006-2010 for Lucasfilm because its data did not include job titles before 2006). I then selected for each Defendant the job title that included 25 employees (or the closest number to 25) in order to have examples with as many employees as seemed reasonable to display graphically in a single chart. If more than one job title contained 25 employees, then I selected the first one ranked alphabetically.

⁹ According to Dr. Leamer, “A high positive correlation means that compensation of a title moves in a way that is similar to compensation in the rest of the Technical Class, thus supporting the conclusion that the title and the class have “coordinated” compensation levels, a fact which is consistent with sharing of gains and broad impact of the anti-cold-calling conspiracy whether it directly affects the title under study or the rest of the Technical Class” (Leamer Supplemental Report ¶51). I infer from this that Dr. Leamer considers his calculated correlations to be “high” and “positive.”

¹⁰ I include individuals that change job titles in my analysis because moving an individual into a new job title (e.g., promoting him from a Software Engineer 3 to a Software Engineer 4) is one way in which a firm can increase an individual's compensation (in response to a cold call or otherwise) without adjusting the firm's compensation structure more broadly.

suffering large decreases (more than 25 percent). Taken together, Exhibit 2 and the summary statistics based on this type of analysis for more years and a larger number of jobs at each of the seven Defendant firms in Appendix B show that there is substantial room for a firm to adjust compensation differently for different individual employees, including those with the same job title, and that Defendants take advantage of this flexibility.

16. Exhibit 3 examines average annual changes in individuals' compensation between 2001 and 2011 after adjusting for individual characteristics (in effect, standardizing the changes across individuals by eliminating systematic impacts on compensation that reflect age, tenure, gender and job title).¹¹ The differentiation summarized in this exhibit reflects the differences between the change in compensation for an individual and what would be predicted based on changes in the overall compensation structure and that individual's characteristics and job. A value of +10 percent indicates that the individual obtained an increase 10 percent greater than equivalent "peers," while -10 percent indicates that the individual received 10 percent less than equivalent peers. Again, the results show that Defendants exercise substantial flexibility in adjusting individual compensation, with a wide distribution of annual adjusted changes (shown in the exhibit as deviations from the average change for the year).

17. Exhibit 4 summarizes the data from Exhibit 3. I group the data into four categories by compensation change, and show in the exhibit the top and bottom 10 percent (deciles) and the top and bottom 25 percent (quartiles). The exhibit shows the large differences in compensation changes between employees with the lowest compensation changes and those with the highest compensation changes (after controlling for age, tenure, gender, and job title). For example, at Adobe, employees in the bottom decile of the distribution have annual compensation changes that are 29 percent below the average; employees in the top decile of the distribution have annual compensation changes that are 29 percent above the average. Thus, the difference in the compensation changes between these two groups is nearly 60 percent—the top group's annual compensation increase is, on average, 60 percent higher than the increase of the bottom group. Similarly, the difference in the compensation changes between the employees in the bottom

¹¹ This comparison eliminates systematic effects, such as larger average increases for younger employees or for those with less tenure.

quartile at Adobe and those in the top quartile is almost 40 percent.¹² The large variation in compensation changes at Adobe, as well as at the other six Defendants, shows that there is ample room for a firm to adjust the compensation of one employee without adjusting the compensation of others.

18. Thus, Exhibits 1-4 show that the Defendant firms routinely adjust compensation at the individual level. As a result, there is sufficient variation in rates of compensation growth for individual employees, even within the same job title, that a firm can increase compensation of an employee who receives an outside offer without adjusting compensation of other employees with the same job title.¹³

III. PROPERLY INTERPRETED, DR. LEAMER'S "CORRELATION" EVIDENCE SHOWS THAT LITTLE VARIATION IN AVERAGE JOB-LEVEL COMPENSATION IS "EXPLAINED" BY CHANGES IN CLASS-WIDE AVERAGE COMPENSATION

19. Dr. Leamer presents "correlations that compare the movement over time of the average compensation of each title with the average compensation of the firm's Technical Class," and claims that these calculations reveal a "large amount of co-movement of compensation among most of the Technical Class titles of each defendant."¹⁴ He claims that this co-movement is "consistent with a top-down budgeting method" and a "somewhat rigid" salary structure, which allows the effects of the anti-cold-calling conspiracy to spread broadly across each firm."¹⁵

20. However, whether the correlation evidence is "consistent with" his theory is only part of the issue that Dr. Leamer must address in order to support his theory. More relevant for purposes of understanding whether Plaintiffs' claims have merit is whether evidence of co-movement is *inconsistent* with a compensation structure that is not rigid in the way that Dr. Leamer claims. The essence of hypothesis testing is not to provide evidence "consistent with" a

¹² The difference between a 19 percent increase and a 19 percent decrease is 38 percent. In Exhibits 3-6, percent differences are defined as differences in logs.

¹³ Appendix A provides additional evidence, relied upon by Dr. Leamer in his Reply Report, of the dispersion of compensation changes for employees at Intel and Apple within a single job title.

¹⁴ Leamer Supplemental Report ¶4.

¹⁵ Leamer Supplemental Report ¶4.

hypothesis, but to offer evidence capable of rejecting that hypothesis if it were not true. Evidence that is equally consistent with the theory being true and the theory being false is not informative. Dr. Leamer's analysis fails to meet this essential principle of scientific methodology.

21. In the language of economics, Dr. Leamer implies that his correlations reflect causality¹⁶ – that a change in one variable leads to or causes a change in the other – but he then offers only evidence of co-movement. However, correlation, or similar movement, in average job-title compensation does not establish the necessary causation to support Dr. Leamer's theory. Moreover, as I explain below, Dr. Leamer also overstates the similarity in movement and mischaracterizes the implications of the measured correlations.

A. It is Deviations in Compensation, Not Correlations, that Matter for Evaluating Plaintiffs' Claims

22. Dr. Leamer does not explain what his correlation coefficients imply about his claim of a somewhat rigid compensation. Correlation measures the degree to which two series are linearly related to one another,¹⁷ but not how much the two series deviate over time. There can be large deviations between the series, even though they have a "high" correlation coefficient.

Economics tells us that what is relevant in understanding the rigidity of a firm's compensation structure is the extent to which compensation of alternative job titles deviate from one another, not whether they are weakly or strongly correlated. If they track closely, then the firm has exercised little scope to differentiate pay across job titles. If they diverge substantially, then the firm can and does differentiate pay across job titles. Even if, as Dr. Leamer claims, a "Large Share of [Job Title] Change Correlations are Positive," it does not follow that Defendants have compensation structures that require them to change compensation for all, or nearly all, class members if they raise one employee's compensation in response to a cold call.

23. Exhibit 5 shows the variation in annual changes in job-level average compensation after adjusting for individual characteristics (age, tenure, gender and job title) over the period 2001-

¹⁶ Leamer Supplemental Report ¶¶42, 46.

¹⁷ See, for example, George Casella and Roger L. Berger, *Statistical Inference*, 1990, pp. 160-168.

2011.¹⁸ The exhibit shows that there is substantial variation in annual changes for all firms. This distribution of changes in job-level average compensation is summarized in Exhibit 6.¹⁹ As I did in Exhibit 4 (which summarizes the employee-level changes), I group data into categories by compensation change to show the large differences between the jobs (weighted by the number of employee-years) with the largest compensation changes and those with the smallest compensation changes. Using Adobe as an example, the jobs in the top decile increased by 16 percent relative to the average, while the jobs with the largest negative deviations decreased by 15 percent relative to the average. Thus, the annual change in job average compensation at Adobe was about 30 percent higher in jobs in the top decile than in jobs in the bottom decile (after adjusting for differences in the characteristics of the employees in each job). Similarly, the changes in job average compensation at Adobe was almost 20 percent higher in jobs in the top quartile than in jobs in the bottom quartile. The variation in changes in job average compensation is largest for Google and Pixar and smallest for Intel, but is economically large for all Defendants.

24. Exhibits 7 and 8 extend the analysis of the top 25 job titles from my initial report (see Exhibit 18 in that report), where I showed that there was wide variation in annual compensation changes for these job titles. In Exhibit 7, I select a sample of the most common jobs that span across each of Dr. Leamer's deciles for each Defendant, and plot the annual changes in average compensation at each job.²⁰ The exhibits confirm that, rather than moving in lockstep, average

¹⁸ Data for Lucasfilm are limited to 2006-2011.

¹⁹ These calculations correct for the difference in individual characteristics across titles by using annual-level regressions of compensation changes on individual characteristics and fixed job effects. The job-level deviations are measured by the fixed job effects in these regressions. Correcting for individual characteristics makes very little difference to the results, but Dr. Leamer has expressed concern that variation in individual characteristics may be generating some of the variation over time in job-level compensation (Expert Report of Edward E. Leamer, Ph.D., October 1, 2012, ¶¶128-134). I also have calculated the same statistics without correcting for individual characteristics and obtain very similar results which support the same economic conclusions.

²⁰ I select the jobs as follows. First, I take the top five jobs from each of the ten deciles at each Defendant. Because some deciles have fewer than five jobs, I have fewer than 50 jobs for most Defendants after this first step. Second, I take the next largest jobs (based on 2001-2011 employment, which is the same employment measure used by Dr. Leamer when constructing his deciles) until I have 50 jobs for each Defendant. Finally, when plotting the changes, I require the average number of employees across the two years for which I am calculating the change to be at least five. The number of jobs plotted ranges from 9 (at Google in 2002) to 50 (at Intel in years 2004 through 2011).

job-level compensation changes in any given year vary both in sign and magnitude, with some jobs seeing large increases, some large decreases and others smaller increases or decreases.²¹

25. Exhibit 8 extends the time period and looks at 2-, 3-, 4- and 5-year changes in average job-title compensation relative to 2005, rather than the sequence of annual changes.²² Over longer time frames, compensation for the majority of jobs increased, which simply means that wage growth is greater over the long term than the short term. But a “somewhat rigid” wage structure requires more than that. Rigidity has to do with whether the increase in compensation for all jobs is roughly the same or, at a minimum, changes in a systematic way. If, for example, average compensation routinely increases by 50 percent for one job and only 10 percent for another job, one cannot conclude that an increase in pay for one group caused by an employee receiving a cold-call or for some other reason was “shared” with the other group. Indeed, the fact that pay went up 40 percent more for one group than the other implies that increases in pay across jobs were not common, and that the wage “structure” changes substantially over time rather than remains rigid.

B. Correlation Levels that Dr. Leamer Finds “Astounding”²³ Imply that Almost All the Variation in Job-Level Compensation is *Not Explained* by Class-Wide Average Compensation

26. Dr. Leamer reached the wrong conclusion about the rigidity of the Defendants’ compensation structures from his correlation analysis because it appears that he did not consider what a particular level of correlation implies for the supposed rigidity of the compensation structure. He provides no means of evaluating whether a correlation of, say, 0.4 is sufficient to conclude that a compensation structure is somewhat rigid.

²¹ Exhibits 7 and 8 show changes in the raw data. I have also looked at versions of these charts adjusting the compensation changes for individual characteristics and fixed job effects. Adjusting for individual characteristics makes very little difference to the results.

²² I have performed the same analysis for starting years of 2004 and 2006 because the starting year matters somewhat for the average level of change (although much less so for the variation in changes), and the results are comparable.

²³ Leamer Dep. at 563:8-15.

27. Dr. Leamer calculates correlation between changes in job-level averages and the class-wide average compensation²⁴ that range from -0.96 to 0.99 across the seven Defendants. This average hides wide variation in the estimated correlations across jobs. But, his conclusion would be unwarranted even if all of the true correlations between job-level compensation changes and class-wide average compensation were equal to his average estimated correlation (roughly 0.60).²⁵

28. It is important to understand what a correlation means in order to interpret and evaluate Dr. Leamer's findings. A correlation of 0.6 between the average compensation for a job title and the class-wide average means that 64 percent of the variance remains after controlling for changes in the class-wide average ($= 1 - .6^2$). The amount of variation that remains after accounting for movements in the class-wide average equals the square root of 0.64, or 0.80. This means that the remaining variation in job-level compensation after controlling for changes in average class-level compensation is 80 percent of the total variation in job-level compensation in the raw data, or *only 20 percent less than if there were no correlation at all*.²⁶

29. Given that Defendants' data show that job-level compensation does not move in lockstep, or anything close to it, there is no economically meaningful sense in which Defendants have somewhat rigid compensation structures that would necessitate sharing of compensation jobs across the class irrespective of the correlation coefficients that Dr. Leamer calculates. The wide variation across individual employees within a job title does not support Dr. Leamer's inference that, in the Court's words, "the Defendants' salary structures were *so* rigid that compensation for employees with entirely different titles would necessarily move together through time such that a detrimental impact to an employee with one job title would necessarily result in an impact to

²⁴ Dr. Leamer actually uses the average of class-wide compensation excluding the job at issue. Given the number of jobs, this is similar to the class-wide average compensation.

²⁵ In his backup, Dr. Leamer provided an estimate of the mean correlation by firm based on his "shrinkage" methodology. The average across Defendants of these measures is 0.57. I use 0.6 for illustrative purposes.

²⁶ The square of the correlation coefficient, which measures the percentage of the variance in job-level compensation changes that are explained by changes in the class-wide average, is .36 ($0.36 = 0.6^2$ in this example). However, the range of variation in compensation changes we observe is measured by the standard deviation (which equals the square root of the variance), not the variance. This shows why Dr. Leamer's focus on the degree of correlation is so misguided.

other employees in entirely different jobs (*i.e.*, that any impact would ripple across the entire salary structure).”²⁷

IV. DR. LEAMER’S REGRESSION ANALYSIS DOES NOT SHOW THAT FORCES OF INTERNAL EQUITY COMBINED WITH THE HYPOTHESIZED “SOMEWHAT RIGID” WAGE STRUCTURE GENERATE CLASS-WIDE IMPACT FROM THE CHALLENGED AGREEMENTS

30. Dr. Leamer explains the rationale for and conclusions to be drawn from his regression model as follows:

Correlation of title compensation and class compensation could come from sharing effects but could also come from third variables that operate on both title and class compensation at the same time, for example, “market forces.” To *confirm* the existence of a somewhat rigid compensation structure revealed by my correlation analysis, I examine (company by company) a multiple regression model which *forces the class compensation to compete with other variables as an explanation of title compensation*.²⁸

Based on this analysis, Dr. Leamer claims to demonstrate that increased compensation for individuals in one part of the firm (e.g., within a particular job title) would “ripple” to (or, as he refers to it, “be shared” with) all other employees in the proposed Technical Class. He claims to do so with a regression model that demonstrates two types of “sharing.” First, Dr. Leamer claims to find contemporaneous sharing in which an increase in compensation for one group (a job title) causes a contemporaneous increase in compensation for other groups (other job titles in the class). Second, he claims to find lagged sharing that demonstrates a form of “catch-up” in which compensation for a group that falls behind in one year increases the following year through some unspecified “corrective action” to become closer to its “normal” level relative to the rest of the class.

31. However, both of Dr. Leamer’s inferences regarding sharing are unsupported by his regression and are entirely unfounded. His regression model suffers from two well-known statistical fallacies – the “reflection problem” and “reversion to the mean” – that make his interpretation of the sign and statistical significance of coefficients on the sharing and external variables in his regression for purposes of evaluating his theory improper. In combination, these

²⁷ Order at 36.

²⁸ Leamer Supplemental Report ¶24 (footnote omitted, emphasis added).

two statistical fallacies virtually guarantee that Dr. Leamer will obtain the results that he does, even if his theory is wrong and there is no effect of one individual's compensation on the compensation of other employees and no impact of changes in average compensation for one job on average compensation for other jobs (i.e. no “sharing”).

A. Dr. Leamer Ignores the “Reflection Problem”

32. Dr. Leamer commits a long-recognized error of statistical inference. He ignores the “reflection problem” in concluding that the change in average class compensation causes the average compensation of a job title to increase. As a consequence, Dr. Leamer would expect to obtain the same regression results even if there were no “sharing,” and no propagation of a cold-call related increase in compensation for one employee or a small group of employees into increases in compensation for the rest of the proposed class.

33. The canonical example to illustrate the reflection problem is the relationship between one individual's test scores and the average test scores of the individual's classmates. There will tend to be a positive relationship between the performance of the individual and her classmates. If one uses a regression like Dr. Leamer's, the positive coefficient on the classmates' average test scores will show that a higher average score for an individual's classmates are associated with higher score for the individual. However, this result provides no information to distinguish between two alternative theories: (1) that the student does better because she is in a class with higher performing classmates (in Dr. Leamer's terminology, that the achievements of classmates are “shared” or transmitted to an individual student) or (2) that both the student and her classmates are influenced by common factors, such as the quality of the school or teacher or a more advantageous family background. A regression like that estimated by Dr. Leamer does not permit one to tell which is correct, because both theories could explain why a student performs better when she is in classroom with better students.²⁹

34. This is the reflection problem, and it is the fallacy that Dr. Leamer commits. The coefficient on his contemporaneous variable merely shows that there is correlation between changes in compensation of one job title and the average compensation of the class, but it does not reveal the cause of that correlation. Indeed, finding that compensation for a given job

²⁹ This problem is a critical issue in deriving conclusions from analyses such as those performed by Dr. Leamer.

increases more than normal when the average increase for all other jobs in the class is larger than normal is hardly surprising, even in the absence of sharing. After all, the class-wide average outcome is essentially the average of the outcomes for the constituent groups.

35. The “reflection problem” is a well-known pitfall in interpreting regressions like those offered by Dr. Leamer that attempt to identify whether group-level outcomes (in this case, compensation for the class as a whole) influences individual-level outcomes (in this case, average job-level compensation). As described by Professor Charles F. Manski, who pioneered the research in this area, correlation between group behavior and individual behavior cannot by itself answer the question whether group behavior influenced individual behavior:

This identification problem arises because mean [average] behavior in the group is itself determined by the behavior of group members. Hence, data on outcomes do not reveal whether group behavior actually affects individual behavior, or group behavior is simply the aggregation of individual behaviors. This *reflection problem* is similar to the problem of interpreting the (almost) simultaneous movements of a person and his reflection in a mirror. Does the mirror image cause the person’s movements or reflect them?³⁰

Generally, when individuals in a group are subject to at least some common influences, it will appear that they are responding to each other even when they are not. Moreover, this can be true even when such common factors are relatively unimportant determinants of individual outcomes.

36. In the Technical Appendix, I explain how the statistical property known as the reflection problem makes Dr. Leamer’s conclusions about “sharing” and “catch-up” unjustified. The import of that analysis is as follows. Consider a hypothetical firm with many job titles. Compensation in each job title is determined solely by the sum of two types of factors: (1) common factors (firm-level success, changes in the general economy, etc.) and (2) job-specific factors (group-level performance, changes in the market for individual skills, etc.). One can illustrate the fallacy in Dr. Leamer’s results by considering the case where these job-specific factors are completely independent across jobs. In other words, there is no “sharing” – no impact of compensation in one job on compensation in any other job – because the job-specific factors are entirely independent of and do not influence one another.

³⁰ Charles F. Manski, “Economic Analysis of Social Interactions” 14 J. Econ. Perspectives 115 (2000), at 128. Understanding mean reversion (or simultaneity) in data is an important issue when evaluating policy interventions (see Robert A. Moffitt, “Policy Interventions, Low-Level Equilibria, and Social Interactions” in *Social Dynamics*. MIT Press, 2001, Section 3.2.1 – Simultaneity).

37. Now consider Dr. Leamer's regression, which he says demonstrates that there is "sharing" of compensation adjustments between job titles. In essence, what Dr. Leamer does is to substitute a variable that measures the change in average compensation for the rest of the class (his "contemporaneous sharing" variable) for the common and job-specific variables that are the true determinants of job-specific compensation. Thus, his sharing variable reflects changes in compensation for all the other jobs at the firm, even though, by assumption, compensation changes for those other jobs have no direct causal impact on the change in compensation of a particular job (because job-specific factors are totally independent). The consequence is that his estimated coefficient on this variable will reflect the variance of changes in the common factors and the variance of the changes in job title-specific factors for all the job titles, but (for the technical reason that I explain in the Technical Appendix) the magnitude of the estimate will be dominated by the common factors (rather than job-specific factors) when the firm has many different job titles contributing to firm-wide average compensation. As a result, the measure of the change in average compensation for the firm effectively serves as a proxy for the common factors that affect both compensation of the particular job title and compensation of all other jobs at the firm. The coefficient on the change in class-wide compensation does not measure "sharing" or any causal relationship between compensation of a particular job and the job-specific factors that influence compensation for other jobs. Nevertheless, Dr. Leamer interprets his results as proof that the change in job title compensation is caused by sharing because he fails to recognize the reflection problem.

38. Dr. Leamer's confusion about what he can conclude from this correlation evidence, and the relevance of external factors, was apparent at this deposition. He testified that changes in compensation for the various job titles at Adobe between 2001 and 2003, during the "tech bust," were particularly useful for testing his rigid compensation structure and sharing theories.³¹ But this is exactly the wrong type of variation (a shock common to Adobe as a whole and indeed to the entire tech industry) to test his theory that cold calls to individual employees would be "shared" with all or nearly all Technical Class employees. The fact that compensation for many or even all groups of employees at Adobe fell when there was a common shock (the tech-bust) that affected Adobe's business as a whole and the local labor market broadly, and then rose when

³¹ Deposition of Edward Leamer, June 11, 2013 ("Leamer Dep.") at 747:17-749:16.

economic conditions improved, does not show that a force that operates directly on one group of employees would ripple out to (*cause* compensation changes for) others. Shocks that directly affect many groups would be reflected in correlation of compensation of those groups, even if there were no linkages at all.

39. Furthermore, Dr. Leamer's characterization of his average compensation change and lagged compensation change variables as "internal factors" that cause changes in average compensation for a job makes no sense. Changes in average compensation of the class cannot be the ultimate "cause" of changes in job-level compensation, because the change in the overall average is determined by the changes in average compensation of the jobs that comprise that class average. In a sense, this conceptual error is at the heart of the "reflection problem" – as a matter of economic logic, both the overall average and its components must be determined by some underlying factors that Dr. Leamer has not identified. His analysis cannot reveal whether these underlying factors are internal (which one might define to be firm-specific factors) or instead are driven by the external marketplace.

40. The simple, but important, implication of Dr. Leamer's confounding of internal and external factors is that there must be omitted factors in Dr. Leamer's model, or there can be no adjustment process of the type that he claims. If we accept his estimated "sharing" model, then there must be some cause that initiates the deviations from his somewhat rigid compensation structure, and thus leads to the changes in overall average compensation which then are propagated throughout the compensation structure. Once one admits that such unmeasured factors exist, but that they are unidentified, it is pure faith to claim, as Dr. Leamer does, that they are not common.

B. Dr. Leamer's "Horse Race" Is Uninformative

41. Dr. Leamer does not completely ignore the fact that common factors can generate the appearance of sharing even when none actually exists. To test whether his "sharing effect" simply reflects "external factors" that are common across job titles,³² he claims to have run a "horse race" between the "sharing" effects that underlie his theory and external factors that, if they were the cause of his results, would refute his theory. Based on this analysis, which he

³² Leamer Dep. at 571:25-573:3 and 597:21-598:2.

implements by including “external” factors in the same regression as the two “sharing” variables, he concludes that “[t]he regression analysis reported above indicates that the internal sharing effects are generally more detectable than either revenue sharing or the external market forces.”³³

42. Dr. Leamer’s “horse race” is flawed, just like his methodology in general. His results simply reinforce his errors of interpretation rather than providing information about the underlying data. In the Technical Appendix, I illustrate this by showing what happens when some measured common factors are added to the model. I show that, when measured common factors (in his case San Jose employment and firm revenue) that capture only a portion of the variance in common factors (with the rest being unmeasured) are included, the coefficient on the measured external factors will reflect only a small fraction of the true impact of the external factors, while the estimated coefficient on the firm-wide average compensation change will decline only slightly (the technical explanation for this is in the Appendix). For example, in the model that I develop in the Technical Appendix, adding factors that account for 50 percent (a relatively large fraction) of the common factors reduces the estimated sharing effect from 0.86 to 0.75. In addition, the estimated impact of the common factors that are included in the regression is only one-quarter of its true size.

43. This downward bias in the estimated effect of Dr. Leamer’s “external factors” is once again a well-known problem in econometrics. The classic example can be seen in the economics of education. If an analyst constructed a regression model in which income was a function of education and an individual’s lagged income, the coefficient on education in the regression will understate, perhaps dramatically, how much education contributes to the individual’s income. The problem is that education also increases lagged income and therefore part (maybe most) of the effect of education on income will be captured by this lagged effect rather than by the education variable itself. At a technical level, Dr. Leamer’s regression model suffers from what is known in econometrics as an “endogeneity problem,” which arises when some of the same unmeasured common factors drive both the independent and dependent variables. It is well known that including an endogenous variable (i.e., one that is correlated with the omitted factors – here, lagged income) will bias coefficients on both the endogenous variable (in this case the

³³ Leamer Supplemental Report ¶65.

sharing variable) and on the other variables included in the regression (in this case, education),³⁴ and that controlling for some of these omitted factors does not solve this problem.

44. The consequence is that Dr. Leamer's analysis and the "horse race" that he claims supports the "somewhat rigid" compensation structure on which his theory relies are uninformative. His "horse race" between his "sharing" and "external" variables was fixed, because the statistical properties of the model predetermine that the "external" variables he added would not matter substantially and that his "result" that internal sharing was important would survive even when it does not represent the underlying process that generates the data (i.e. even when there is no sharing).

C. Dr. Leamer Does Not Take Into Account the Tendency of Compensation to "Revert to the Mean"

45. Dr. Leamer's second statistical fallacy arises from "reversion to the mean" and is known as the "regression fallacy."³⁵ The regression fallacy arises when an analyst examines a data series that is subject to shocks that are, at least to some extent, temporary, and ignores the tendency of such data to "regress" or revert to the mean of the distribution. Reversion to the mean describes many phenomena, such as the tendency for athletes who perform extremely well or extremely poorly in one year to perform more like the average athlete in the following year. With employee compensation data, it reflects the tendency of an individual who receives an exceptionally large bonus or other form of compensation in one year to receive a smaller bonus or other compensation in the following year (although one that still may be above average).

46. A simple illustration of this phenomenon is the expected compensation of a salesman who is paid on commission. In any year, the salesman's compensation can be low (assume \$75,000), medium (\$100,000), or high (\$125,000) based on whether it was a bad, average or good year. Assume that one third of the years are good, another third are average, and the rest are bad. If year one is good, and the salesman earns \$125,000, then there are three equally likely

³⁴ Endogeneity causes the ordinary least squares estimator to be biased and inconsistent. See for example, William H. Greene, *Econometric Analysis*, Sixth Edition, Chapter 12. See also Robert S. Pindyck and Daniel L. Rubinfeld, *Econometric Models and Economic Forecasts*, Fourth Edition, Chapter 12.

³⁵ See, e.g., Milton Friedman, "Do Old Fallacies Ever Die?" 30 J. Econ. Literature 2129 (1992). Friedman says that he "suspect[s] that the regression fallacy is the most common fallacy in the statistical analysis of economic data." He also notes that "the phenomenon in question is what gave regression analysis its name."

possible changes for next year: next year is good (compensation of \$125,000 and no change from year one); next year is average (compensation of \$100,000 and a decline of \$25,000 in compensation year over year); and next year is bad (compensation of \$75,000 and a decline of \$25,000 in compensation year over year). Since, by assumption, the three outcomes are equally likely, the expected change in compensation is $-\$25,000$ ($(\$0 - \$25,000 - \$50,000)/3$). In contrast, if year one were a bad year (compensation of \$75,000), the potential changes in compensation the follow year are $+\$50,000$, $+\$25,000$ and zero, and the expected change is therefore $+\$25,000$. If year one is an average year, the three possibilities are no change, $+\$25,000$ and $-\$25,000$, for an expected change of zero. The first two scenarios demonstrate expected reversion to the mean compensation level of \$100,000.

47. Exhibit 9 plots the data generated by this process. The level of compensation in year one is measured on the horizontal axis and the change in compensation from year one to year two is measured on the vertical axis. The exhibit shows the regression line that would result from regressing the change in compensation from year one to year two on the level of compensation in year one. The line has slope -1.0 , which reflects the fact that the extra compensation (relative to the average) earned today – which is $+\$25,000$ in a good year and $-\$25,000$ in a bad year – is not expected to persist in year two, but instead will “revert” in year two to the average of \$0.³⁶ An analyst that applied Dr. Leamer’s methodology could mistakenly conclude from a regression analysis of the change in compensation from year one to year two on the level of compensation in year one that the firm is constantly adjusting the salesman’s compensation to keep it in line with the long-run average (that the firm is actively “catching-up” the salesman’s compensation to the normal level in Dr. Leamer’s terminology), when in fact the firm plays no active role at all. Rather, it is the natural variation in pay that generates what appear to be systematic adjustments to compensation.

³⁶ This example is easily extended to allow for persistence in compensation over time. In particular, if we assume that the state persists with probability $p < 1$ (i.e. if times are good this year, they will be good the next year with probability p and shift to being average or bad each with probability $(1-p)/2$ then the regression coefficient will be $-3/2(1-p)$). When $p = 1/3$ then we have the same case discussed above (no persistence). As long as $p < 1$, i.e. there is some temporary component to compensation, the regression coefficient will be negative.

48. At his deposition, Dr. Leamer claimed that reversion to the mean was not a problem that affected interpretation of his analysis or its relevance in supporting Plaintiffs' claims.³⁷ He appeared to acknowledge that firms could respond to the pressures for internal equity with bonuses and stock grants, which are less visible and so might not be as likely to generate internal equity concerns.³⁸ However, even if this were true, it does not vindicate Dr. Leamer's methodology or make his conclusions sensible, but instead explains why his theory makes no sense. A firm that uses less visible forms of compensation (bonuses and stock grants) to increase compensation for some individuals without succumbing to pressures for internal equity and adjusting all employees' compensation can avoid "sharing." The compensation data would then make it appear that there was a large "lagged sharing" or "catch-up" effect in Dr. Leamer's regression because of the strong reversion to the mean generated when compensation is adjusted through one-time stock grants and bonuses, rather than through adjustment in base pay, *even if there was no sharing at all*. In such an example, the sharing effect that Dr. Leamer claims he has estimated instead would result from the firm's decision to use a form of compensation that avoided sharing.³⁹ In other words, Dr. Leamer's model gets it completely backwards.

49. Of course, compensation, especially bonuses and stock grants, has transitory components for reasons unrelated to internal equity. Firms use bonuses and stock grants to provide incentive-based pay⁴⁰ that is based on a measure of performance, such as individual or group performance or an individual's or group's contribution to firm profits or revenues. But human performance is subject to many random factors, and exceptional performance often will not recur (or recur as strongly) in subsequent years.⁴¹ This is reflected in the salesman example I gave above. In that

³⁷ Leamer Dep. at 634:3-635:6.

³⁸ Leamer Dep. at 690:5-691:22.

³⁹ Dr. Leamer's conduct regression estimates undercompensation based on total compensation, which includes one-time stock grants and bonuses. Therefore, even if one were to accept the results of his conduct regression, those results may be caused by the types of compensation that Dr. Leamer admits might not be shared.

⁴⁰ Susan E. Jackson et al., *Managing Human Resources*. Eleventh Edition, Chapter 11.

⁴¹ At his deposition, Dr. Leamer stated that he believed that there would not be "measurement error" or "randomness" in compensation that "create regression to the mean" (Leamer Dep. at 642:12-643:10). However, this is incorrect. When pay is based on performance there will be random elements of pay due to the fact that there are many factors that determine performance beyond the skill level of the individual. Of course, this is not random like flipping a coin; it simply means there are many factors other than the measurable productivity of the individual or group that contribute to performance (and thus pay), and that such factors will vary over time. For example, the

case, we will observe reversion to the mean absent any concerns over internal equity, any rigidity in pay structure, and any conscious action by the firm other than to pay for performance.

50. Thus, Dr. Leamer's conclusion that Defendants' data is generated by a causal "sharing" relationship, and that the coefficient on the lagged sharing variable "measures the extent to which corrective action is taken at the company,"⁴² is unjustified. It reflects a misinterpretation of the data, because he fails to take into account the empirical regularity of reversion to the mean.

51. Plaintiffs rely heavily on this lagged sharing term as evidence for their sharing and somewhat rigid compensation structure claims. In particular, they claim in their Motion that I cannot explain Dr. Leamer's finding that "gains for some are shared with others *in a subsequent year*."⁴³ But their claim is false – there is a very simple explanation for this finding, one that is well-established in the labor and econometrics literature⁴⁴ but overlooked by Dr. Leamer – namely, that reversion to the mean is expected in job-level compensation data. This is not because firms are "sharing" increases or trying to equalize compensation changes across firm. Plaintiffs simply rely on the mistaken belief that one can infer a causal relationship from the fact that high values of a time series are followed by lower values, and low values are followed by higher values.

52. Thus, Dr. Leamer confuses predictable reversion to the mean in the data with evidence of a somewhat rigid compensation structure. The data on compensation growth by title says something very different. There is substantial long-run volatility in compensation across jobs, and this volatility results in reversion to the mean.

batting averages of individual players and even teams exhibit strong reversion to the mean because the relationship between skill and outcomes is highly imperfect (*see*, for example, Nate Silver, *The Signal and The Noise* (2012)).

⁴² Leamer Supplemental Report ¶26.

⁴³ In Re: High-Tech Employee Antitrust Litigation, *Plaintiffs' Supplemental Motion and Brief in Support of Class Certification*, August 8, 2013 ("Motion") at 24.

⁴⁴ Chang Hwan Kim and Christopher R. Tamborini, "Do Survey Data Estimate Earnings Inequality Correctly? Measurement Errors Among Black and White Male Coworkers," *Social Forces* (2012). Donggyun Shin and Gary Solon, "New Evidence on Real Wage Cyclicalities within Employer-Employee Matches," *Scottish Journal of Political Economy* 54 (2007).

D. Empirical Evidence Shows that Dr. Leamer's Regression Results do not Reflect the Causality Required by his Theory to Support Plaintiffs' Claims of Class-Wide Impact

53. Dr. Leamer claims that his regression identified impacts of “sharing” and “catch-up” (or “corrective action”) from forces of internal equity and a “somewhat rigid” compensation structure at each Defendant. He also claims that the relative unimportance of external market forces (measured by information sector employment in the San Jose MSA) demonstrates that the change in compensation for a job title within a firm is not driven by outside influences, such as changes in market compensation. I now use other data where “sharing” forces are not present to demonstrate that the (misnamed) “sharing” effect is an artifact of Dr. Leamer's regression specification.

1. The Same False “Causality” is Found with Another Compensation Dataset

54. The fallacy of Dr. Leamer's inference is demonstrated by applying his regression model to wage and employment data for the overall U.S. economy. In these data, compensation cannot be driven by the force of internal equity combined with a rigid compensation structure within a firm. I use data on individuals from the American Community Surveys (“ACS”)⁴⁵ for the period 2001 to 2010 to calculate average annual compensation for hundreds of occupations in the U.S. economy – jobs such as computer software (applications) engineers; farmers and ranchers; and paralegals and legal assistants. I replicate Dr. Leamer's regression by substituting occupation-level compensation for job-title compensation; U.S. average annual compensation for average class-wide compensation;⁴⁶ U.S. real GDP per worker for average firm revenue per employee; and U.S. total employment for San Jose information sector employment. Thus, my regression replicates both the factors that Dr. Leamer claims determine average job-title compensation (his

⁴⁵ The ACS database is obtained from IPUMS-USA (Integrated Public Use Microdata Series) which is a project “dedicated to collecting and distributing United States census data.” (<https://usa.ipums.org/usa/>) “The Integrated Public Use Microdata Series (IPUMS-USA) consists of more than fifty high-precision samples of the American population drawn from fifteen federal censuses and from the American Community Surveys of 2000-2011.” (<https://usa.ipums.org/usa-action/faq>) “The ACS is a project of the U.S. Census Bureau that has replaced the decennial census as the key source of information about American population and housing characteristics. ... The 2000 ACS is an approximately 1-in-750 public use sample consisting of 372,000 person records. Public use samples from the 2001-onward ACS are even larger. The 2001-2004 samples each represent approximately 0.4% of the population, including more than 1,000,000 person records per sample. The 2005-onward ACS datasets are full 1% samples containing more than 2,800,000 person records.” (<https://usa.ipums.org/usa/acs.shtml>).

⁴⁶ Like Dr. Leamer, I exclude the given occupation from the calculation of U.S. average compensation.

“sharing” and “catch-up” variables) and the factors that he claims do not affect, or have a much weaker influence on, average job-title compensation (firm revenue and external factors).

55. Exhibit 10 compares Dr. Leamer’s results with those I obtain using the ACS data. As the exhibit shows, coefficient estimates on variables that are analogous to variables in Dr. Leamer’s specification are similar to those he finds in his regression. If anything, they show a stronger impact in the supposed “causal” directions of “sharing” and “catch-up” than he finds. For the data as a whole, the weighted average coefficient estimate on the “contemporaneous effect” variable is 1.09, compared to only 0.72 in Dr. Leamer’s regression. The “lagged effect” or “catch-up” variable has a coefficient estimate of 1.32, compared to only 0.41 in his regression.

56. In addition, as an analogue of Dr. Leamer’s “decile-based” regressions using Defendants’ data, I performed an analysis where I rank U.S. occupations by their overall average real earnings during the 2001-2010 period in the ACS data, and group them into deciles of roughly the same size (in terms of their fraction in total U.S. employment in the data over this period). Exhibit 11 compares the coefficient estimates from regressions using the ACS data and those from Dr. Leamer’s regressions. I find that, in almost all cases across the deciles, the estimated “sharing” and “catch-up” effects are stronger using the ACS data than the ones Dr. Leamer finds using Defendants’ data. Thus, interpreted through Dr. Leamer’s view of how the marketplace operates, this means that there is greater sharing and catch-up between extremely diverse occupations and unrelated industries and employers than there is for “technical” jobs within an employer.

57. These results, which use national data for widely disparate jobs across all kinds of industries and firms, strongly suggest that Dr. Leamer’s results are not capturing what he claims – in short, that his results likely are spurious. The logical interpretation is that they suffer from the reflection problem and reversion to the mean that we expect to be there. While the findings from running his regression on national occupation-level compensation are senseless viewed through Dr. Leamer’s economic theory, they are not surprising when that theory is discarded.

58. A variety of common factors would cause average compensation in one occupation to be correlated with average compensation for the U.S. economy as a whole, but Dr. Leamer’s hypothesized “internal equity” and “rigid compensation structures” are not among those factors. Common influences, such as the overall performance of the economy, will cause average

compensation for most occupations to move in a common way with the aggregate economy. But this no more demonstrates that compensation for farmers is “catching” up to preserve “fairness” relative to paralegals than it can be concluded that Dr. Leamer’s regressions demonstrate “fairness” and causation within the Defendants’ data.

2. A Regression Model that Explains the Change in Chicago Temperature as “Catch-up” from the Difference between Chicago and Milwaukee Temperatures Illustrates Dr. Leamer’s Misleading Conclusions

59. The misleading conclusions caused by ignoring the “reflection problem” and “reversion to the mean” are not limited to regressions using labor market compensation data. To illustrate how easy it is to get results like those presented by Dr. Leamer, and how wrong the conclusions that can be drawn when an analyst ignores basic statistics, I use data on daily temperature for two cities: Chicago (where I live) and Milwaukee (a nearby city). In keeping with Dr. Leamer’s specification, I examine changes in daily temperature in one of the two cities (e.g. Chicago), using as explanatory variables (a) changes in the temperature of the “reference” city (e.g. Milwaukee), and (b) prior day’s temperature difference between the reference city and the city under study. The first explanatory variable is analogous to Dr. Leamer’s contemporaneous “sharing” variable, and the second variable is analogous to his “catch-up effect” variable.

60. Exhibit 12 shows the results of this analysis. The left panel presents results for Chicago and the right panel presents results for Milwaukee. “Model 1” shows estimates from a simple specification including just the “sharing” and “catch-up” variables. Not surprisingly, the results mirror those presented by Dr. Leamer. The coefficient estimates on both variables are positive. Given how Dr. Leamer interprets similar results from his regression, he would conclude that, for example, the positive coefficient on the second variable implies that there is “corrective” action to lower Chicago’s temperature and increase the temperature in Milwaukee when yesterday’s temperature in Chicago is warmer than normal.

61. The effect of adding common factor variables, and thus running the Dr. Leamer-type horse race, is illustrated in the next two columns. “Model 2” includes only indicator variables for months of the year as explanatory variables, and does not contain the “sharing” or “catch-up” variables. The results agree with intuition: as can be seen from coefficient estimates on the

month indicator variables, temperature begins to fall in August, declines rapidly through the fall, and then begins to rise in February.

62. In the next “Model 3” column, I combine the explanatory variables from Model 1 and 2. Now the sensible monthly pattern is gone. Instead, coefficient estimates on the month variables would seem to suggest that for Chicago, temperature increases in every month of the year and for Milwaukee, temperature decreases in every month of the year. This happens because coefficients on the month variables no longer reflect their actual effects on temperature. Instead, measurement of the monthly pattern is confounded by what Dr. Leamer would call contemporaneous “sharing” and lagged “catch-up” variables. Dr. Leamer would thus come to two conclusions – both of which contrary to common sense – that changes in Chicago temperature can be explained by “sharing” or “catch-up” effects with Milwaukee temperature.

E. Conclusion

63. Dr. Leamer’s correlation and regression results reflect the same pattern of “sharing effects” that one would find in national level labor market data, a regression analysis to explain changes in the daily temperature in Chicago based on the lag of temperature in Milwaukee, or using other data on related time series that have both common and idiosyncratic effects. Dr. Leamer confuses well-known and predictable properties of regressions of related time series with causal effects. He characterizes his results as evidence of “sharing” generated by concerns about internal equity and compensation policies that enforce a somewhat rigid wage structure, but his inference is at odds with sound econometric practice.

64. In their Motion for Reconsideration, Plaintiffs dispute the explanation I provided in my previous report⁴⁷ for why the data are consistent with Defendants’ employees’ compensation being determined by competition in a broad labor market, with highly individualized adjustments for unique circumstances of individual employees, such as information received through a cold call.⁴⁸ They claim instead that Dr. Leamer’s regression analysis in his Supplemental Report demonstrates that my “speculation” is “unsupportable.” Yet, the evidence that I provided above,

⁴⁷ In Re: High-Tech Employee Antitrust Litigation, Expert Report of Professor Kevin M. Murphy, November 12, 2012.

⁴⁸ Motion at 24.

like that in my previous report, shows that, far from disproving my conclusion, Dr. Leamer's empirical findings are consistent with the existence of a broad labor market in which employee compensation is affected by individual factors, such as information revealed during a cold call, but the impact of such events on other employees is limited and does not spread to the entire proposed class. Dr. Leamer's results are fully consistent, and indeed expected, if a reduction in cold-calling would not have class-wide impact.

V. DR. LEAMER DOES NOT ESTABLISH THAT THE PROPOSED TECHNICAL CLASS IS PROPERLY DEFINED

65. Dr. Leamer claims that he “do[es] not find persuasive evidence to suggest that there are sizeable groups whose compensation might have been disconnected from Defendants’ somewhat rigid compensation structure”⁴⁹ or that there is any way to “identify and exclude from the Technical Class job titles based on a lack of these positive correlative relationships.”⁵⁰ In other words, Dr. Leamer appears to argue that Plaintiffs’ have defined the class “just right,” or at a minimum in a way that would permit the boundary of that proposed class to be evaluated empirically, no basis for including all jobs that could qualify as “technical” in their proposed class, no matter where located in the country.

66. Dr. Leamer's opinions about the composition of the proposed class have no merit given that, as I demonstrated above, his empirical evidence has not established any causal relationship between cold-calls that affect one job title and compensation provided to employees with other job titles, let alone a class-wide impact. While it is possible that there would be some forces within a company that would cause adjustment of compensation of some other employees in response to a cold-call, Dr. Leamer has no basis on which to identify the scope of such influence or to conclude that large portions of the proposed class are not unaffected by the challenged agreements. What matters in determining “common impact” for a class as large and diverse as the proposed Technical Class is not the average extent of linkage between different groups (such as job titles), but that the linkages spread across all (or nearly all) the groups included in the proposed class. Even if correlation mattered for understanding whether some kind of “causal”

⁴⁹ Leamer Supplemental Report ¶10.

⁵⁰ Leamer Supplemental Report ¶11.

relationship existed between certain groups, the average level of correlation would not be informative about whether all those groups belong in the same class. Rather, the correlation would have to be high for all, or nearly all groups in the proposed class (again, if as Dr. Leamer claims, correlation itself were informative, which it is not).

VI. DR. LEAMER'S CONDUCT REGRESSION REMAINS UNINFORMATIVE

67. Dr. Leamer's Conduct Regression suffers from errors that render it uninformative.

68. First, the Court noted that "Dr. Leamer's report is slightly ambiguous as to whether any variables besides revenue should have been included to control for correlations across employees...To the extent there are other variables that may improve the accuracy of the Conduct Regression and obviate the need for clustering, Dr. Leamer is encouraged to include them in his next report."⁵¹ Dr. Leamer did not take the opportunity to do so. His argument that these common factors all can be taken into account simply by including additional measured common factors is simply wrong, even if it were feasible to do so given that these factors will differ across Defendants (thereby requiring inclusion of Defendant-specific variables). In any event, Dr. Leamer's failure to respond to the Court's suggestion leaves unknown what method he thinks could be used to demonstrate that his Conduct Regression has any probative value.

69. Second, Dr. Leamer acknowledged at his deposition that he responded only to one of the models that I offered in my original report to demonstrate that he wrongly assumed a common conduct effect for all Defendants,⁵² and he claimed that the model that he had critiqued had "overwhelmed the data."⁵³ However, he did not comment on the more parsimonious model that I also offered, which included fewer explanatory variables but which still permitted measurement of separate Defendant-specific conduct effects.⁵⁴ My second model (Appendix 11 of my Original Report) includes Defendant-specific conduct measures by interacting the conduct

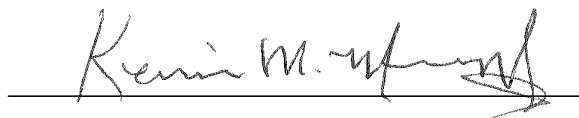
⁵¹ Order fn. 15.

⁵² Leamer Dep. at 770:25-771:13.

⁵³ Leamer Dep. at 770:19-23.

⁵⁴ When asked if he recalled "any reason why you didn't offer a criticism of that second approach by Dr. Murphy in your ... reply declaration," Dr. Leamer responded "Presumably because I didn't have comments to make about it" (Leamer Dep. at 771:6-13).

variable with each defendant. I reduced the number of explanatory variables by not including interactions between conduct and age, and conduct and hiring rate, because as I explained the interactions with age and hiring rate added very little power to the regression. My results (on which Dr. Leamer did not comment on) showed large variation in the size and even the *sign* of the estimated undercompensation effects, with the estimates indicating that employees at Adobe, Lucasfilm and Pixar were not undercompensated, but instead were overcompensated. This indicates that Dr. Leamer had no basis to assume a common impact across Defendants. Dr. Leamer's Table 1 and 2 in his Supplemental Report, which show that there are low or even negative correlations in average total compensation between certain Defendants, also show that one cannot simply assume common impact across Defendants.

A handwritten signature in black ink, reading "Kevin M. Murphy", is written over a horizontal line. The signature is cursive and stylized.

Kevin M. Murphy

June 21, 2013

TECHNICAL APPENDIX: MODELLING THE REFLECTION PROBLEM

1. In order to mathematically model the reflection problem in the context of Dr. Leamer's analysis, and thereby illustrate why his conclusions are unjustified, I consider a hypothetical firm with J jobs, each of which has an equal number of employees. Compensation in each job is determined by two types of factors: (1) common factors (firm-level success, changes in the general economy, etc.) and (2) job-specific factors (group-level performance, changes in the market for individual skills, etc.). I assume that compensation for each job is determined by the sum of these two factors. I denote the common factors by A , and the job specific factors by e . Thus, compensation of job j in year t , w_{jt} is given by

$$(1) \quad w_{jt} = A_t + e_{jt},$$

where A_t reflects the influence of the common factors in year t and e_{jt} reflects job-specific factors for job j in that year.

2. I assume that the job-specific factors are independent of (uncorrelated with) one another, and thus there is no "sharing." Transforming equation (1) into year-over-year changes yields for job j

$$(2) \quad w_{jt} - w_{jt-1} = (A_t - A_{t-1}) + (e_{jt} - e_{jt-1}).$$

The change in average compensation for jobs other than job j is given by

$$(3) \quad w_{-jt} - w_{-jt-1} = (A_t - A_{t-1}) + \frac{1}{J-1} \sum_{i \neq j} (e_{it} - e_{it-1}).$$

3. Equations (2) and (3) describe the true process that determines compensation changes in this model, namely the contributions of changes in common and job-specific factors.

4. Now consider a regression analysis analogous to that performed by Dr. Leamer, in which the researcher wants to use these data to understand whether there is "sharing" of the type he claims. The type of regression model specified by Dr. Leamer is:

$$(4) \quad w_{jt} - w_{jt-1} = \alpha + \beta(w_{-jt} - w_{-jt-1}) + \varepsilon_{jt},$$

with the change in compensation for one job modeled to be "explained by" the change in compensation of all other jobs, rather than by the changes in common and job-specific factors

that generate the data. It then is straight forward to show that the regression coefficient on the change in the average compensation, β , in equation (4) will be given by

$$(5) \quad \hat{\beta} = \frac{\sigma_A^2}{\sigma_A^2 + \frac{1}{J-1} \sigma_e^2}$$

where σ_A^2 is the variance of the changes in the common factors and σ_e^2 is the variance of the changes in the job-specific factors.

5. Equation (5) has the important implication that, when the average outcome variable (in this case average compensation growth) is obtained by averaging over a large number of jobs, the resulting average largely will reflect common factors because the idiosyncratic job-level factors will tend to average out. The denominator in equation (5) is the variance of the change in class-wide average compensation, while the variance of changes in job-level compensation is

$$(6) \quad \sigma_A^2 + \sigma_e^2.$$

Equation (5) shows that the importance of common factors is amplified in the class-wide variables because the contribution of job-specific factors is reduced by the factor $1/(J-1) < 1$. For example, if there are 25 jobs, then the contribution of job-specific factors is reduced by a factor of 24 ($= 25-1$). This means that the change in average compensation variable effectively serves a proxy for the common factors that affect firm-wide compensation. These common factors will be picked up by (and attributed to by an analyst using Dr. Leamer's approach) the average compensation change variable, even if they are a small part of what drives job-level compensation.

6. This proxy effect can be illustrated by considering a simple example where common factors account for only 20 percent of job-level variation and there are 25 equally sized jobs in the firm. The fraction of variance in job-level compensation changes accounted for by the common factors is equal to $\sigma_A^2/(\sigma_A^2 + \sigma_e^2)$, which implies that $\sigma_e^2/\sigma_A^2 = 4$. Under these conditions, equation (5) implies that we would expect a regression coefficient of $1/(1+4/24) = 0.86$ on the average wage change variable and a correlation between job-level and average compensation. Thus, even though *by construction*, common factors account for only 20 percent of overall changes in compensation and there is no sharing at all (i.e., changes in compensation for an individual job have no effect on compensation in other jobs by construction), an analyst using Dr. Leamer's methodology would conclude that the compensation structure displays

“astounding” correlation, is “somewhat rigid” and most importantly (and most egregiously for purposes of evaluating Plaintiffs’ claims) that 86 percent of the change in average compensation is “shared.” This would be true in spite of the fact that there is zero actual sharing and thus no reason why an entire putative “class” of all employees at the firm possibly could be harmed by actions that affect some individuals or even some jobs.

7. Dr. Leamer claims that he was able to reject an alternative theory that his results reflected the influence of common factors by running a horse raise with his “sharing” theory. However, my model shows why he is wrong. Assume that there are some measured common factors, and that these variables capture a fraction R^2 of the variance of the common factors. Then, the coefficient on the average compensation change variable becomes

$$(7) \quad \hat{\beta} = \frac{(1 - R^2)\sigma_A^2}{(1 - R^2)\sigma_A^2 + \frac{1}{J-1}\sigma_e^2}$$

8. If one adds variables to the regression that explain one-half of the common factor effect (i.e. $R^2=0.50$), this implies a regression coefficient of 0.75 (versus 0.86 in the regression without the control variable). Importantly, the estimated coefficient on the common factors in the regression would be only one-fourth of its true size, causing the researcher to greatly understate its influence. Adding factors that explain less than 50 percent of the common components generates even smaller changes. For example, adding factors that explain 20 percent of the common factors would result in a “sharing” coefficient of 0.83 (versus 0.86 without controls) and a coefficient on the common variable equal to only about one sixth of its actual size.

Derivation of Equation (7) and Estimated Coefficient on Common Factors

For simplicity of notation, I now denote everything in changes. Consider also that everything on the right hand side is independent of each other

$$w_{jt} = A_t + e_{jt}$$

$$w_{-jt} = \frac{1}{J-1} \sum_{i \neq j} w_{it} = A_t + \frac{1}{J-1} \sum_{i \neq j} e_{it}$$

Now assume that

$$A_t = X_t + u_t$$

X is observed variable orthogonal to u.

Regress w_{jt} and w_{-jt} on X to get residuals. These are

$$\tilde{w}_{jt} = u_t + e_{jt}$$

$$\tilde{w}_{-jt} = u_t + \frac{1}{J-1} \sum_{i \neq j} e_{it}$$

Now run OLS to get β .

$$\beta = \frac{\sigma_u^2}{\sigma_u^2 + \frac{1}{J-1} \sigma_e^2}$$

By definition

$$\sigma_u^2 = \sigma_A^2 (1 - R^2)$$

This yields

$$\beta = \frac{\sigma_A^2 (1 - R^2)}{\sigma_A^2 (1 - R^2) + \frac{1}{J-1} \sigma_e^2}$$

To get the coefficient on X we regress

$$w_{jt} - \beta w_{-jt} = (1 - \beta)(X_t + u_t) + e_{jt} - \frac{\beta}{J-1} \sum_{i \neq j} e_{it}$$

on X.

This gives a coefficient of $(1 - \beta)$ versus the true coefficient of 1.

Appendix A

Dr. Leamer's Evidence Does not Show "Lack of Variation" in Individual Compensation

Materials Dr. Leamer submitted with his earlier reports further demonstrate the variation in individual compensation. At paragraph 63 of Dr. Leamer's Reply Report, Dr. Leamer cites an example of [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

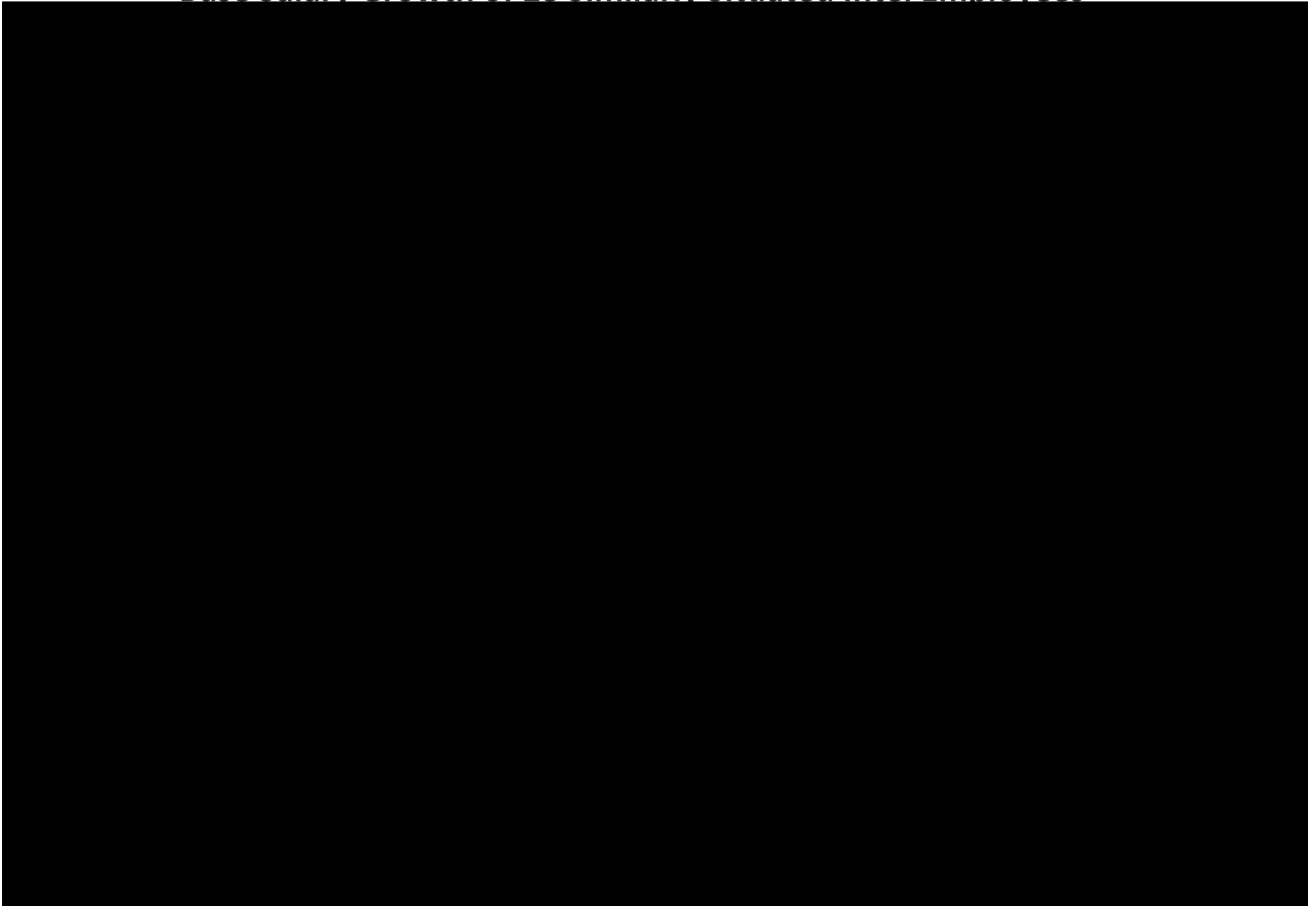
Attached as Exhibit 1 are tables with data as provided in Dr. Leamer's backup materials showing compensation and job titles for these same 28 Intel employees and 4 Apple employees over time:.

- Page 1 provides the base salaries for each of the 28 Intel employees for the year 2007 to 2011. The columns on the far right show the dollar and percentage increases in base salary for each employee during this period, and the bottom rows show the minimum and maximum base salaries each year and the ranges between them.
- Page 2 provides the total compensation (including base salaries, bonuses, and equity compensation) for each of the 28 Intel employees for the years 2007 to 2011. The columns on the far right show the increases in total compensation for each employee during this period, and the bottom rows show the minimum and maximum total compensation each year and the corresponding ranges.
- Page 3 provides the job titles of each of the 28 Intel employees in each year from 2007 to 2011.
- Pages 4-6 provide this same data for the 4 Apple employees referenced in Dr. Leamer's Reply Report for the years 2008 to 2011.

Attached as Exhibit 2 are charts showing graphically how the compensation of these employees changed over time.

Exhibit 1

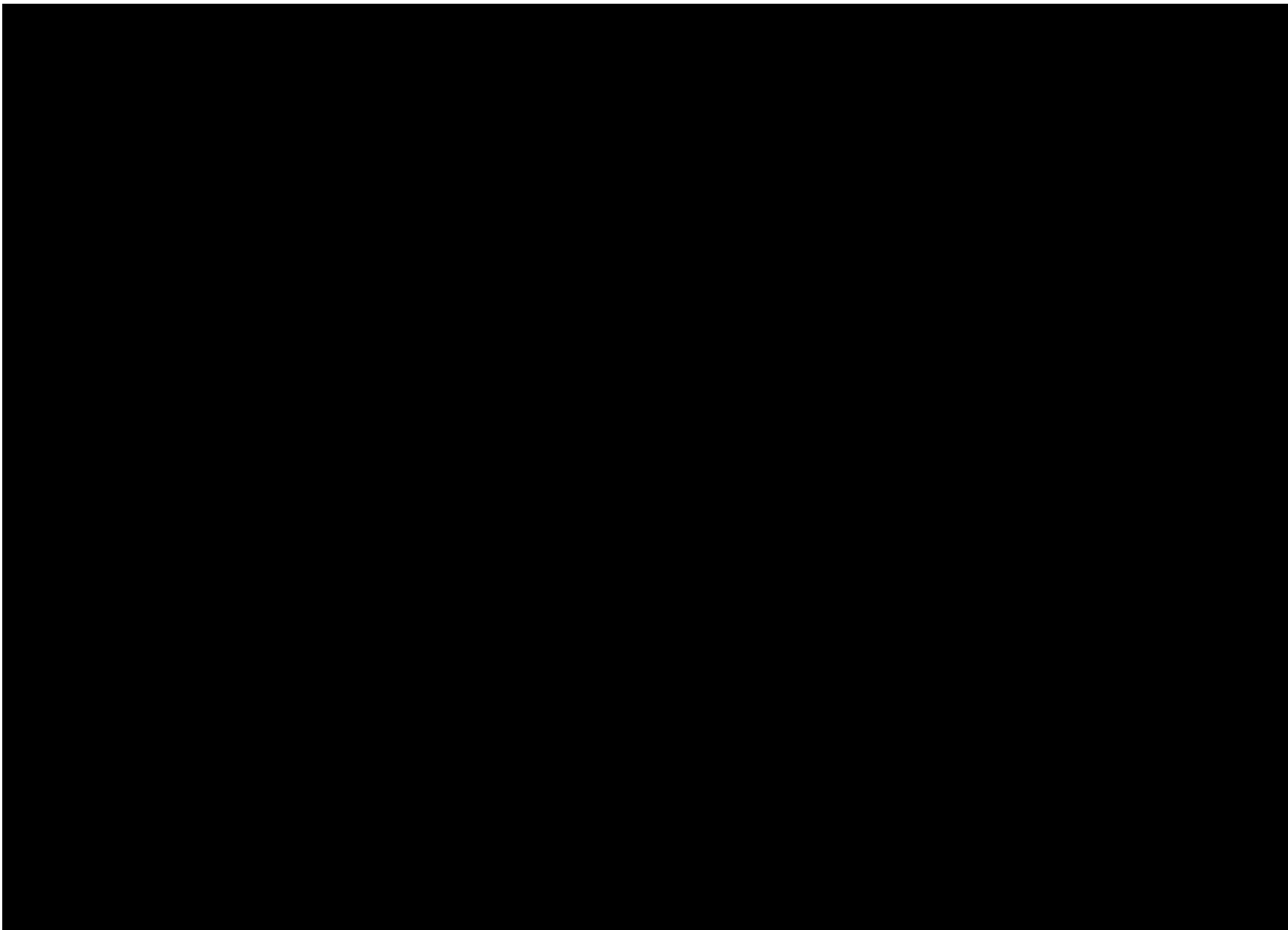
Base Salary Growth of 28 Similarly Situated Intel Employees



Note: The Dollar Range Percentage is calculated as the difference between the logs of the maximum and minimum.

Sources: Dr. Leamer's backup data; Dr. Leamer's Reply Report at ¶63 and December 12, 2012 Correction Letter.

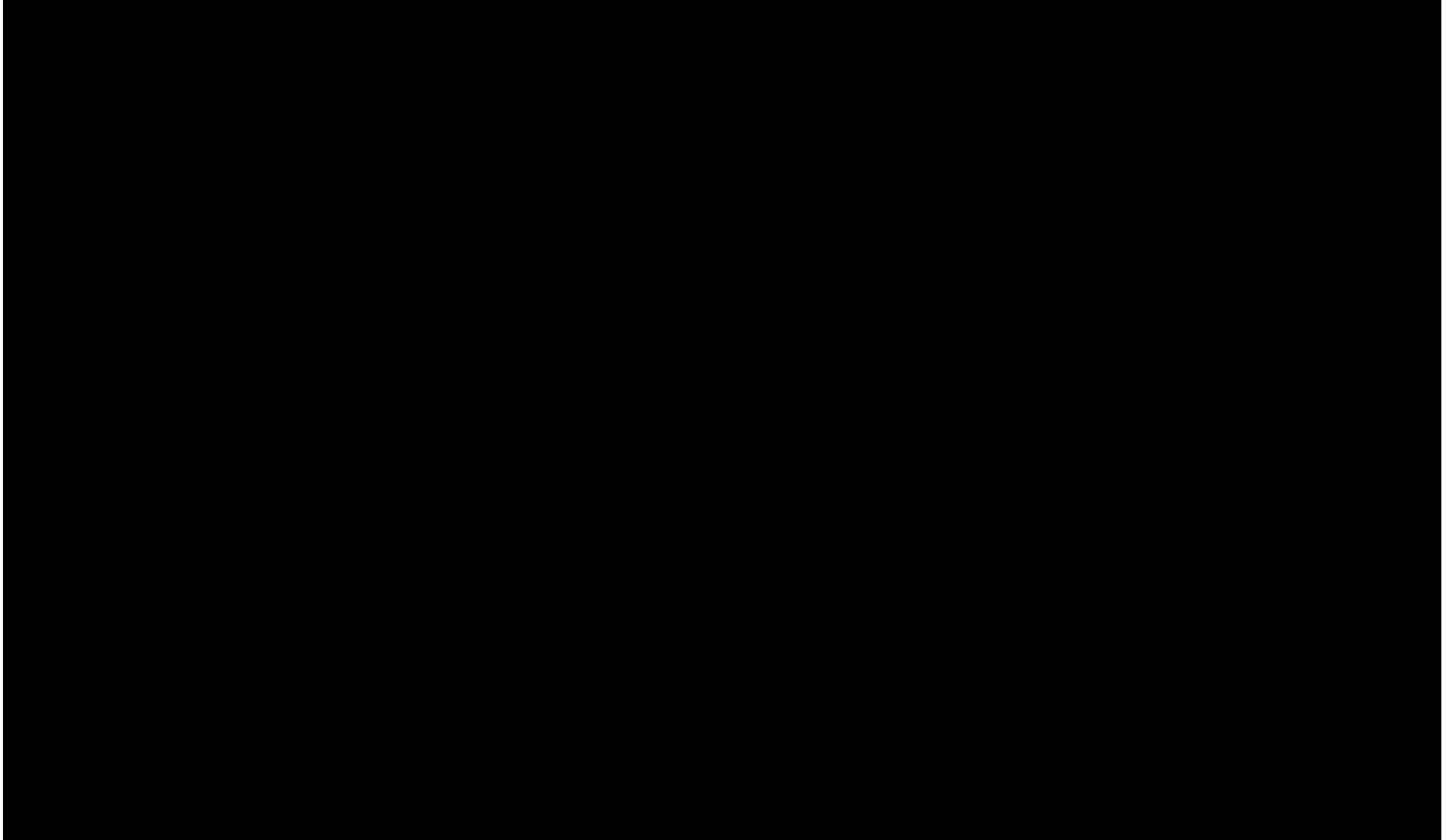
Total Compensation Growth of 28 Similarly Situated Intel Employees



Note: The Dollar Range Percentage is calculated as the difference between the logs of the maximum and minimum.

Sources: Dr. Leamer's backup data; Dr. Leamer's Reply Report at ¶63 and December 12, 2012 Correction Letter.

Job Progressions of 28 Similarly Situated Intel Employees



Sources: Dr. Leamer's backup data; Dr. Leamer's Reply Report at ¶163 and December 12, 2012 Correction Letter.

Base Salary Growth of 4 Similarly Situated Apple Employees

2008, Apple, [REDACTED]

Employee	Base Salary				2008 to 2011 Growth	
	2008	2009	2010	2011	Dollars	Percent
Employee 1	[REDACTED]					
Employee 2						
Employee 3						
Employee 4						
Minimum						
Maximum						
Dollar Range						
Dollar Range Percentage						

Note: The Dollar Range Percentage is calculated as the difference between the logs of the maximum and minimum.

Sources: Dr. Leamer's backup data; Dr. Leamer's Reply Report at ¶164.

Total Compensation Growth of 4 Similarly Situated Apple Employees

2008, Apple, [REDACTED]

Employee	Total Compensation				2008 to 2011 Growth	
	2008	2009	2010	2011	Dollars	Percent
Employee 1	[REDACTED]					
Employee 2						
Employee 3						
Employee 4						
Minimum						
Maximum						
Dollar Range						
Dollar Range Percentage						

Note: The Dollar Range Percentage is calculated as the difference between the logs of the maximum and minimum.

Sources: Dr. Leamer's backup data; Dr. Leamer's Reply Report at ¶164.

Job Progressions of 4 Similarly Situated Apple Employees

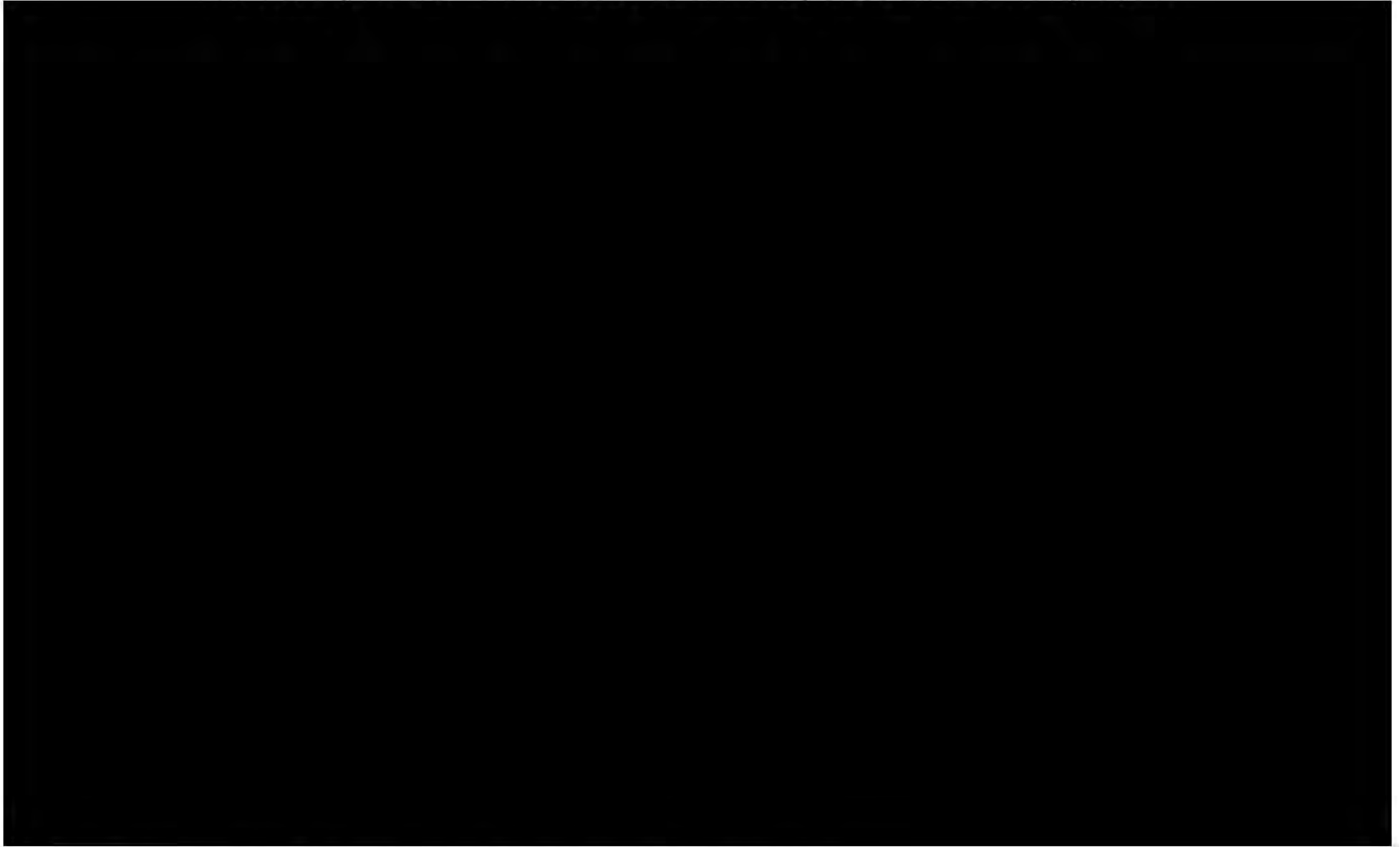
2008, Apple, [REDACTED]

Employee	Job Title and Grade			
	2008	2009	2010	2011
Employee 1	[REDACTED]			
Employee 2				
Employee 3				
Employee 4				

Sources: Dr. Leamer's backup data; Dr. Leamer's Reply Report at ¶64.

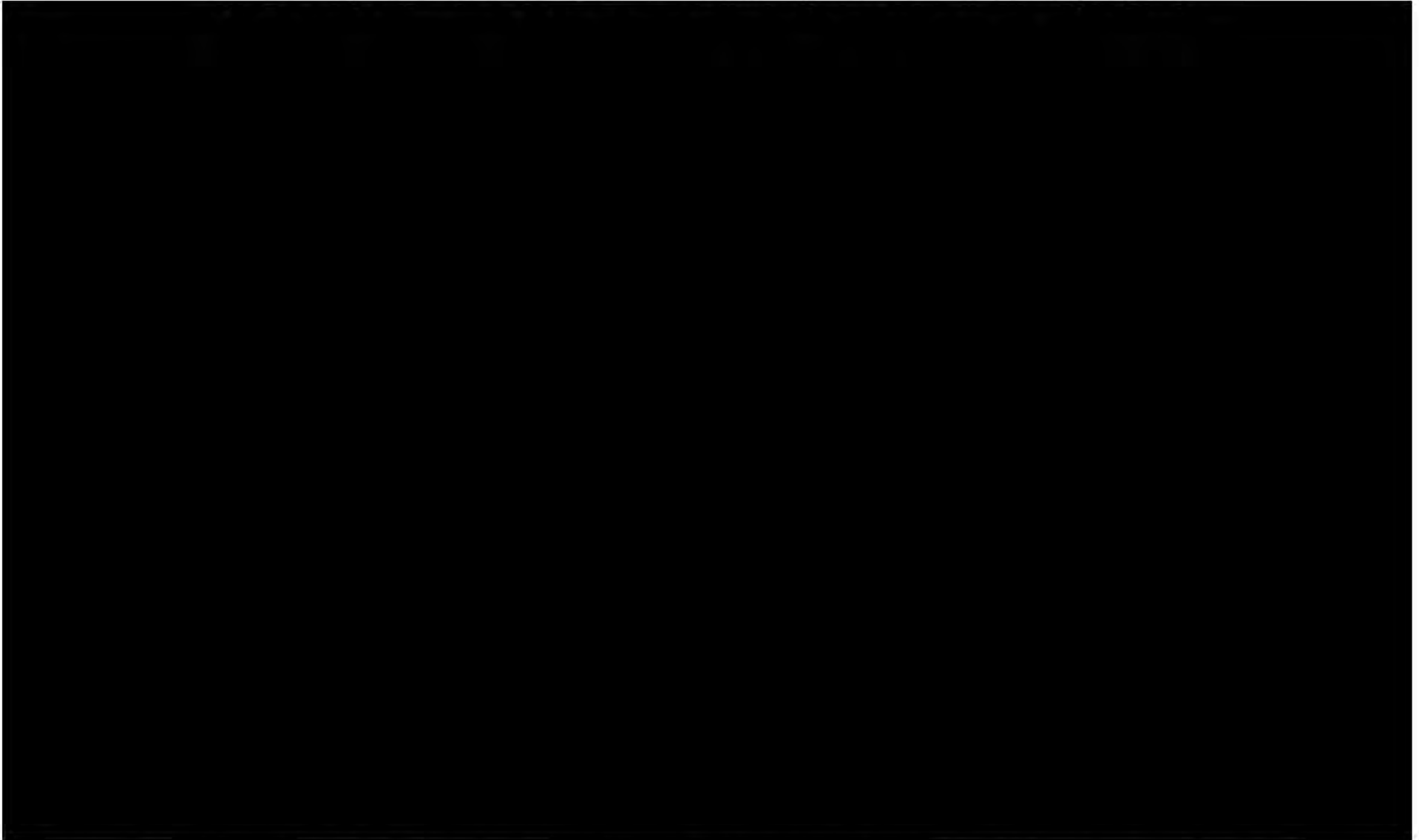
Exhibit 2

Total Compensation Growth of 28 Similarly Situated Intel Employees



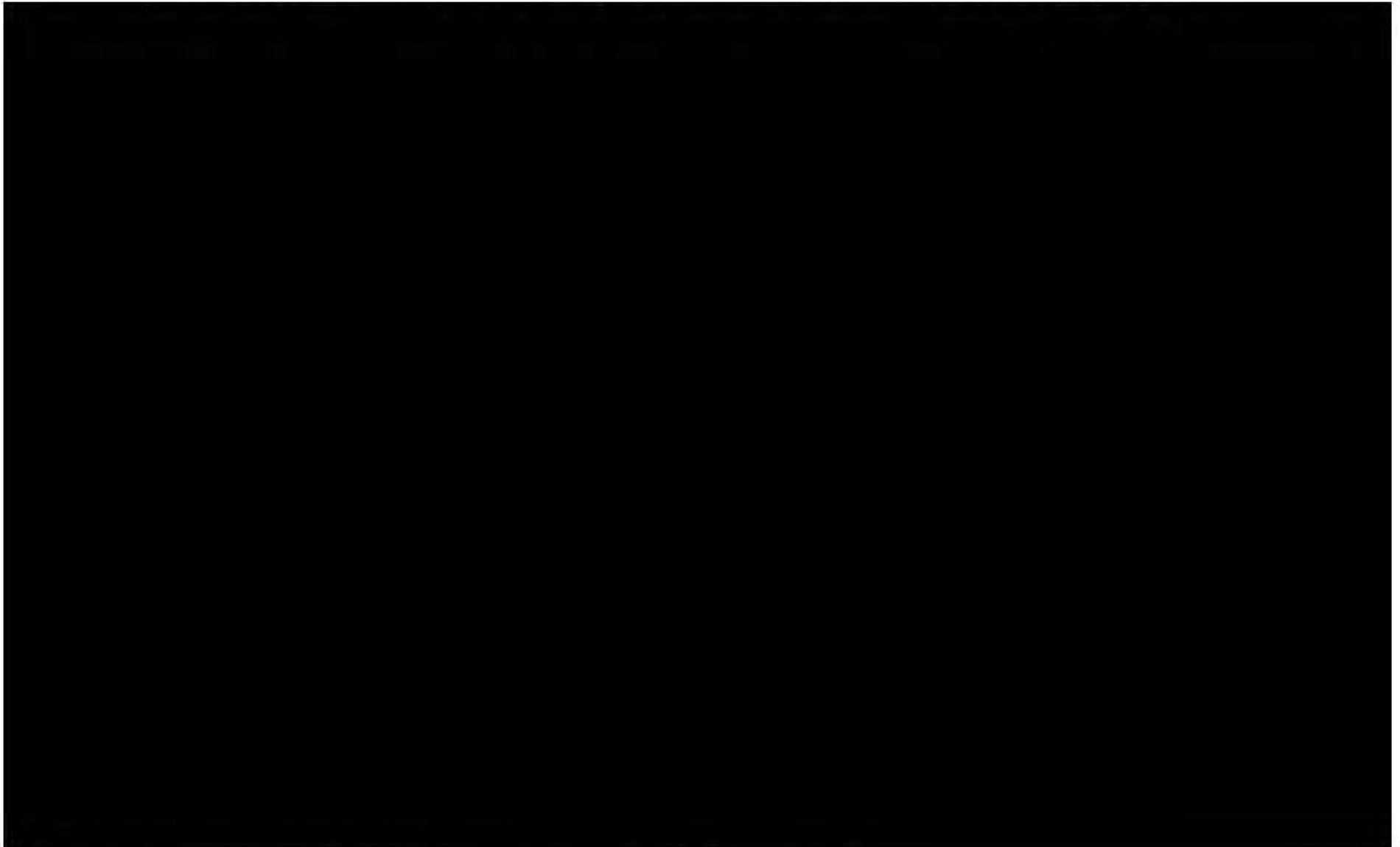
Source: Dr. Leamer's backup data; Dr. Leamer's Reply Report at ¶¶63 and December 12, 2012 Correction Letter.

Total Compensation Growth of 9 Similarly Situated Intel Employees



Notes: Included are the nine employees (out of the 28 similarly situated Intel employees as of 2007) who continued to hold the job title FINANCIAL_ANALYST_3 through 2009.
Source: Dr. Leamer's backup data; Dr. Leamer's Reply Report at ¶63 and December 12, 2012 Correction Letter.

Total Compensation Growth of 4 Similarly Situated Apple Employees



Source: Dr. Leamer's backup data; Dr. Leamer's Reply Report at ¶163 and December 12, 2012 Correction Letter.

Appendix B

Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2001	ADOBE		152	-16%	-57%	-41%	-25%	-18%	-11%	13%	51%
2002	ADOBE		121	9%	-30%	-21%	1%	10%	19%	32%	57%
2003	ADOBE		113	-3%	-31%	-20%	-11%	-4%	4%	14%	35%
2004	ADOBE		122	13%	-21%	-13%	7%	14%	20%	37%	93%
2005	ADOBE		188	6%	-22%	-13%	-5%	3%	16%	33%	64%
2006	ADOBE		158	14%	-18%	-13%	1%	10%	25%	46%	221%
2007	ADOBE		214	9%	-39%	-27%	-4%	9%	24%	38%	59%
2008	ADOBE		219	-10%	-48%	-30%	-19%	-9%	-4%	16%	33%
2009	ADOBE		256	7%	-35%	-21%	0%	7%	14%	37%	57%
2010	ADOBE		244	6%	-30%	-23%	1%	5%	12%	33%	48%
2001	ADOBE		155	-16%	-66%	-43%	-28%	-19%	-8%	28%	64%
2002	ADOBE		130	5%	-34%	-26%	-3%	6%	15%	32%	46%
2003	ADOBE		121	-2%	-28%	-22%	-11%	-3%	6%	23%	35%
2004	ADOBE		127	11%	-19%	-13%	5%	12%	17%	33%	43%
2005	ADOBE		171	7%	-32%	-14%	-5%	5%	15%	33%	80%
2006	ADOBE		174	15%	-28%	-15%	1%	10%	24%	55%	258%
2007	ADOBE		204	5%	-36%	-27%	-7%	5%	17%	35%	77%
2008	ADOBE		235	-9%	-60%	-30%	-18%	-7%	-3%	14%	36%
2009	ADOBE		252	5%	-62%	-25%	-4%	7%	14%	32%	47%
2010	ADOBE		262	6%	-48%	-28%	1%	6%	15%	32%	48%
2005	ADOBE		35	25%	-28%	-27%	0%	14%	45%	89%	112%
2006	ADOBE		26	22%	-24%	-7%	5%	20%	33%	71%	82%
2007	ADOBE		33	29%	-49%	-30%	17%	32%	47%	74%	89%
2008	ADOBE		32	17%	-44%	-30%	-17%	-7%	26%	158%	179%
2009	ADOBE		33	-7%	-57%	-57%	-33%	-15%	14%	53%	80%
2010	ADOBE		33	62%	7%	9%	33%	52%	72%	157%	176%
2001	ADOBE		33	-21%	-51%	-46%	-31%	-23%	-17%	8%	72%
2002	ADOBE		31	14%	-13%	-5%	6%	12%	22%	49%	52%
2003	ADOBE		27	1%	-23%	-18%	-8%	1%	11%	23%	24%
2004	ADOBE		30	16%	-6%	0%	11%	16%	24%	33%	36%
2005	ADOBE		35	4%	-19%	-15%	-7%	-1%	12%	37%	50%
2006	ADOBE		39	23%	-11%	-1%	8%	25%	35%	59%	70%
2007	ADOBE		34	3%	-28%	-15%	-6%	1%	9%	29%	30%

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Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2008	ADOBE		40	-13%	-31%	-28%	-18%	-12%	-7%	-1%	9%
2009	ADOBE		37	10%	-11%	-9%	3%	9%	17%	37%	40%
2010	ADOBE		28	4%	-12%	-10%	1%	4%	7%	25%	26%
2005	ADOBE		25	5%	-19%	-9%	-3%	1%	8%	35%	48%
2006	ADOBE		25	12%	-10%	-6%	6%	12%	18%	26%	37%
2009	ADOBE		30	6%	-20%	-17%	-9%	3%	9%	25%	105%
2010	ADOBE		30	21%	-33%	-16%	4%	29%	33%	51%	63%
2009	ADOBE		25	-4%	-53%	-52%	-13%	0%	7%	25%	31%
2010	ADOBE		29	34%	-20%	-18%	28%	38%	43%	68%	79%
2010	ADOBE		28	30%	-30%	-28%	6%	32%	46%	75%	110%
2001	ADOBE		34	-27%	-60%	-53%	-43%	-25%	-19%	12%	14%
2002	ADOBE		29	-8%	-42%	-38%	-23%	-12%	10%	29%	30%
2005	ADOBE		32	13%	-20%	-6%	1%	12%	26%	40%	41%
2008	ADOBE		27	-5%	-27%	-22%	-13%	-10%	-1%	29%	39%
2010	ADOBE		29	24%	-25%	-24%	10%	28%	35%	57%	58%
2001	ADOBE		28	-26%	-51%	-50%	-40%	-24%	-20%	6%	7%
2002	ADOBE		30	-8%	-40%	-32%	-21%	-12%	9%	26%	26%
2003	ADOBE		39	10%	-17%	-14%	-2%	9%	24%	33%	46%
2004	ADOBE		57	16%	-25%	-4%	5%	10%	18%	59%	130%
2005	ADOBE		49	8%	-16%	-11%	-3%	5%	12%	49%	63%
2006	ADOBE		52	21%	-9%	-6%	7%	16%	29%	65%	104%
2007	ADOBE		58	8%	-29%	-11%	-2%	5%	15%	32%	62%
2008	ADOBE		68	-10%	-39%	-33%	-25%	-15%	-9%	27%	138%
2009	ADOBE		65	2%	-35%	-19%	-4%	1%	8%	23%	57%
2010	ADOBE		51	34%	-16%	16%	29%	36%	40%	54%	59%
2001	ADOBE		25	-26%	-53%	-50%	-46%	-30%	-25%	9%	125%
2004	ADOBE		31	8%	-14%	-13%	2%	9%	14%	27%	28%
2005	ADOBE		55	8%	-34%	-18%	-3%	4%	12%	57%	97%
2006	ADOBE		58	16%	-46%	-9%	7%	14%	26%	51%	56%
2007	ADOBE		68	12%	-15%	-13%	-2%	6%	18%	50%	217%
2008	ADOBE		67	-10%	-41%	-30%	-20%	-12%	-6%	1%	137%
2009	ADOBE		64	2%	-55%	-19%	-9%	3%	7%	43%	56%
2010	ADOBE		72	33%	-23%	-1%	27%	31%	37%	73%	108%

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2005	ADOBE		28	19%	-24%	-9%	-4%	12%	40%	54%	78%
2008	ADOBE		25	-14%	-32%	-31%	-19%	-12%	-7%	-1%	8%
2005	ADOBE		25	14%	-7%	-5%	-1%	9%	29%	48%	51%
2006	ADOBE		29	18%	-9%	2%	8%	14%	24%	40%	57%
2007	ADOBE		29	3%	-18%	-17%	-6%	2%	9%	31%	32%
2008	ADOBE		27	-15%	-31%	-29%	-26%	-15%	-7%	0%	16%
2009	ADOBE		29	4%	-18%	-17%	-3%	5%	11%	26%	34%
2001	ADOBE		32	-20%	-36%	-35%	-23%	-22%	-17%	-7%	3%
2002	ADOBE		26	8%	-15%	-15%	2%	7%	15%	25%	26%
2001	ADOBE		80	-18%	-56%	-38%	-24%	-19%	-11%	5%	11%
2002	ADOBE		62	12%	-18%	-13%	3%	10%	15%	52%	65%
2003	ADOBE		53	-4%	-31%	-25%	-10%	-4%	2%	15%	25%
2004	ADOBE		44	15%	-8%	-5%	10%	16%	21%	32%	40%
2005	ADOBE		66	3%	-20%	-18%	-8%	-1%	12%	35%	53%
2006	ADOBE		59	14%	-12%	-8%	1%	12%	24%	38%	65%
2007	ADOBE		91	4%	-35%	-31%	-16%	7%	18%	40%	67%
2008	ADOBE		109	-13%	-37%	-33%	-27%	-11%	-3%	19%	34%
2009	ADOBE		158	1%	-38%	-24%	-17%	2%	15%	31%	57%
2010	ADOBE		144	3%	-29%	-23%	-7%	5%	11%	24%	44%
2003	ADOBE		26	14%	-33%	-15%	4%	14%	28%	43%	58%
2005	ADOBE		35	20%	-23%	-18%	-4%	12%	27%	76%	135%
2006	ADOBE		33	15%	-27%	-17%	-2%	3%	29%	55%	158%
2007	ADOBE		35	28%	-16%	-11%	11%	32%	40%	57%	78%
2008	ADOBE		38	14%	-35%	-33%	-15%	-12%	43%	131%	136%
2009	ADOBE		38	-20%	-57%	-57%	-38%	-19%	-5%	24%	41%
2010	ADOBE		41	42%	-47%	-33%	20%	47%	55%	135%	196%
2005	ADOBE		31	22%	-7%	-6%	6%	17%	38%	58%	63%
2006	ADOBE		35	16%	-9%	-3%	6%	16%	23%	41%	49%
2007	ADOBE		43	15%	-26%	-22%	4%	14%	27%	45%	53%
2008	ADOBE		37	-11%	-27%	-26%	-18%	-13%	-7%	15%	16%
2009	ADOBE		32	5%	-26%	-18%	0%	4%	11%	34%	38%
2010	ADOBE		30	24%	-23%	-19%	11%	28%	43%	56%	59%
2005	ADOBE		26	7%	-18%	-9%	-5%	3%	10%	16%	94%

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2006	ADOBE		27	25%	-12%	0%	12%	23%	40%	47%	55%
2007	ADOBE		31	9%	-29%	-13%	-5%	8%	19%	52%	54%
2008	ADOBE		46	-4%	-27%	-26%	-19%	-8%	0%	25%	167%
2009	ADOBE		44	5%	-54%	-25%	-5%	6%	12%	41%	42%
2010	ADOBE		42	7%	-17%	-13%	-4%	8%	12%	34%	46%
2001	ADOBE		28	-24%	-69%	-52%	-35%	-29%	-14%	8%	16%
2002	ADOBE		37	-8%	-49%	-44%	-22%	-16%	10%	32%	33%
2003	ADOBE		44	11%	-18%	-11%	3%	9%	17%	29%	51%
2004	ADOBE		40	10%	-15%	-11%	6%	9%	15%	26%	28%
2005	ADOBE		41	2%	-23%	-20%	-7%	-1%	6%	45%	49%
2006	ADOBE		35	24%	-9%	2%	14%	20%	32%	59%	65%
2007	ADOBE		48	8%	-24%	-10%	-4%	3%	16%	42%	116%
2008	ADOBE		63	-11%	-41%	-27%	-18%	-9%	-5%	7%	9%
2009	ADOBE		64	9%	-21%	-14%	-3%	6%	15%	39%	71%
2010	ADOBE		48	7%	-68%	-14%	0%	7%	11%	35%	67%
2006	ADOBE		26	28%	-13%	-7%	16%	25%	45%	61%	77%
2007	ADOBE		29	0%	-36%	-33%	-11%	-3%	6%	19%	138%
2008	ADOBE		39	0%	-21%	-21%	-13%	-8%	-4%	74%	74%
2009	ADOBE		39	1%	-48%	-47%	-8%	5%	11%	43%	70%
2010	ADOBE		42	18%	-67%	-35%	-6%	7%	22%	109%	147%
2006	ADOBE		26	1%	-18%	-16%	-6%	4%	6%	17%	18%
2001	ADOBE		25	-9%	-50%	-50%	-36%	-21%	-5%	114%	139%
2002	ADOBE		31	-3%	-45%	-35%	-22%	-3%	13%	44%	51%
2003	ADOBE		32	3%	-24%	-9%	-5%	3%	8%	17%	33%
2004	ADOBE		39	12%	-20%	-14%	5%	14%	18%	30%	38%
2005	ADOBE		45	3%	-32%	-14%	-8%	-2%	11%	37%	58%
2006	ADOBE		50	20%	-13%	-1%	11%	18%	26%	42%	102%
2007	ADOBE		52	1%	-24%	-20%	-9%	0%	7%	23%	39%
2008	ADOBE		48	-8%	-26%	-19%	-13%	-6%	-4%	6%	11%
2009	ADOBE		51	11%	-50%	-10%	-1%	7%	15%	30%	143%
2010	ADOBE		49	6%	-54%	-31%	-2%	5%	10%	67%	84%
2001	ADOBE		135	-18%	-49%	-46%	-36%	-21%	-11%	39%	94%
2002	ADOBE		139	7%	-42%	-27%	-8%	6%	17%	28%	233%

Appendix B

Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2003	ADOBE		152	-1%	-61%	-28%	-10%	-1%	5%	21%	183%
2004	ADOBE		166	13%	-37%	-17%	3%	14%	20%	37%	122%
2005	ADOBE		175	1%	-39%	-23%	-8%	-2%	5%	27%	136%
2006	ADOBE		218	14%	-56%	-12%	1%	14%	25%	47%	78%
2007	ADOBE		212	6%	-32%	-21%	-4%	4%	15%	37%	97%
2008	ADOBE		220	-8%	-37%	-31%	-18%	-6%	-3%	14%	80%
2009	ADOBE		219	9%	-71%	-15%	1%	7%	15%	40%	83%
2010	ADOBE		203	2%	-59%	-27%	-7%	4%	8%	29%	48%
2001	ADOBE		31	-21%	-51%	-46%	-33%	-24%	-18%	-3%	108%
2003	ADOBE		27	5%	-51%	-21%	-3%	5%	16%	28%	42%
2004	ADOBE		26	9%	-3%	-1%	2%	10%	15%	21%	26%
2005	ADOBE		39	14%	-23%	-18%	-4%	10%	31%	61%	64%
2006	ADOBE		42	12%	-22%	-19%	1%	12%	20%	40%	46%
2007	ADOBE		57	11%	-24%	-19%	-2%	9%	23%	44%	58%
2008	ADOBE		67	-13%	-35%	-29%	-22%	-17%	-6%	17%	42%
2009	ADOBE		60	8%	-22%	-16%	-4%	3%	12%	47%	144%
2010	ADOBE		73	31%	-31%	-22%	19%	35%	39%	69%	111%
2005	ADOBE		25	11%	-16%	-16%	5%	9%	19%	31%	31%
2006	ADOBE		31	1%	-15%	-13%	-5%	3%	7%	16%	19%
2007	ADOBE		32	7%	-15%	-11%	3%	7%	12%	33%	36%
2008	ADOBE		32	-7%	-24%	-20%	-10%	-5%	-2%	4%	4%
2009	ADOBE		30	11%	-9%	-9%	5%	9%	13%	33%	33%
2001	ADOBE		35	-14%	-35%	-35%	-23%	-13%	-7%	3%	9%
2001	ADOBE		125	-15%	-40%	-34%	-24%	-17%	-10%	9%	53%
2002	ADOBE		112	12%	-25%	-20%	2%	10%	21%	45%	58%
2003	ADOBE		95	-4%	-37%	-24%	-11%	-1%	2%	14%	25%
2004	ADOBE		83	13%	-33%	-17%	7%	14%	23%	38%	52%
2005	ADOBE		123	6%	-27%	-20%	-8%	5%	16%	37%	45%
2006	ADOBE		110	11%	-16%	-8%	0%	6%	21%	38%	49%
2007	ADOBE		96	7%	-32%	-26%	0%	8%	18%	37%	70%
2008	ADOBE		89	-12%	-37%	-33%	-17%	-12%	-8%	6%	13%
2009	ADOBE		65	8%	-23%	-18%	3%	9%	13%	27%	53%
2010	ADOBE		39	6%	-26%	-23%	0%	5%	13%	30%	32%

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**Distribution of Yearly Change in Total Compensation
(Job Titles in Leamer Supplemental Report Regressions)**

[illegible]

Appendix B

**Distribution of Yearly Change in Total Compensation
(Job Titles in Leamer Supplemental Report Regressions)**

[illegible]

Appendix B

**Distribution of Yearly Change in Total Compensation
(Job Titles in Leamer Supplemental Report Regressions)**

[illegible]

Appendix B

**Distribution of Yearly Change in Total Compensation
(Job Titles in Leamer Supplemental Report Regressions)**

[illegible]

Appendix B

Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

[illegible]

Appendix B

**Distribution of Yearly Change in Total Compensation
(Job Titles in Leamer Supplemental Report Regressions)**

[illegible]

Appendix B

**Distribution of Yearly Change in Total Compensation
(Job Titles in Leamer Supplemental Report Regressions)**

[illegible]

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**Distribution of Yearly Change in Total Compensation
(Job Titles in Leamer Supplemental Report Regressions)**

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2018	ABC Corp	Software Engineer	15	100000	75000	85000	95000	105000	115000	130000	150000
2018	ABC Corp	Product Manager	10	120000	90000	100000	110000	120000	130000	145000	160000
2018	ABC Corp	Marketing Specialist	8	70000	55000	60000	65000	70000	75000	85000	95000
2019	ABC Corp	Software Engineer	18	110000	80000	90000	100000	110000	120000	135000	155000
2019	ABC Corp	Product Manager	12	130000	100000	110000	120000	130000	140000	155000	170000
2019	ABC Corp	Marketing Specialist	10	75000	60000	65000	70000	75000	80000	90000	100000
2020	ABC Corp	Software Engineer	20	120000	90000	100000	110000	120000	130000	145000	165000
2020	ABC Corp	Product Manager	15	140000	110000	120000	130000	140000	150000	165000	180000
2020	ABC Corp	Marketing Specialist	12	80000	65000	70000	75000	80000	85000	95000	105000
2021	ABC Corp	Software Engineer	25	130000	100000	110000	120000	130000	140000	155000	175000
2021	ABC Corp	Product Manager	18	150000	120000	130000	140000	150000	160000	175000	190000
2021	ABC Corp	Marketing Specialist	15	85000	70000	75000	80000	85000	90000	100000	110000
2022	ABC Corp	Software Engineer	30	140000	110000	120000	130000	140000	150000	165000	185000
2022	ABC Corp	Product Manager	22	160000	130000	140000	150000	160000	170000	185000	200000
2022	ABC Corp	Marketing Specialist	18	90000	75000	80000	85000	90000	95000	105000	115000
2023	ABC Corp	Software Engineer	35	150000	120000	130000	140000	150000	160000	175000	195000
2023	ABC Corp	Product Manager	25	170000	140000	150000	160000	170000	180000	195000	210000
2023	ABC Corp	Marketing Specialist	22	95000	80000	85000	90000	95000	100000	110000	120000
2024	ABC Corp	Software Engineer	40	160000	130000	140000	150000	160000	170000	185000	205000
2024	ABC Corp	Product Manager	30	180000	150000	160000	170000	180000	190000	205000	220000
2024	ABC Corp	Marketing Specialist	25	100000	85000	90000	95000	100000	105000	115000	125000

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

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**Distribution of Yearly Change in Total Compensation
(Job Titles in Leamer Supplemental Report Regressions)**

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum

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**Distribution of Yearly Change in Total Compensation
(Job Titles in Leamer Supplemental Report Regressions)**

[illegible]

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**Distribution of Yearly Change in Total Compensation
(Job Titles in Leamer Supplemental Report Regressions)**

[illegible]

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2001	INTEL		66	-1%	-25%	-14%	-12%	-6%	6%	23%	57%
2002	INTEL		78	-2%	-23%	-22%	-7%	-2%	5%	13%	33%
2003	INTEL		58	12%	-3%	-2%	7%	10%	17%	27%	42%
2004	INTEL		46	6%	-9%	-5%	2%	7%	9%	14%	24%
2005	INTEL		61	17%	-11%	3%	10%	15%	23%	34%	35%
2006	INTEL		76	16%	-7%	1%	10%	15%	22%	33%	37%
2007	INTEL		68	13%	0%	3%	7%	11%	19%	26%	29%
2008	INTEL		82	1%	-11%	-7%	-2%	1%	4%	12%	21%
2009	INTEL		95	15%	1%	4%	10%	15%	19%	26%	31%
2010	INTEL		82	23%	-2%	9%	16%	22%	29%	47%	49%
2001	INTEL		68	-3%	-27%	-15%	-12%	-3%	5%	15%	42%
2002	INTEL		58	-7%	-34%	-23%	-13%	-7%	-2%	10%	10%
2003	INTEL		68	10%	-18%	-3%	7%	9%	14%	23%	26%
2004	INTEL		79	1%	-18%	-11%	-3%	0%	4%	10%	23%
2005	INTEL		110	13%	-9%	0%	8%	11%	19%	31%	42%
2006	INTEL		93	11%	-11%	0%	6%	10%	16%	23%	24%
2007	INTEL		105	9%	-9%	-1%	6%	8%	14%	23%	28%
2008	INTEL		106	3%	-7%	-5%	-1%	3%	6%	9%	23%
2009	INTEL		104	7%	-6%	-1%	4%	7%	11%	15%	18%
2010	INTEL		97	16%	-5%	3%	11%	15%	22%	32%	46%
2001	INTEL		74	-7%	-48%	-38%	-13%	-8%	-2%	22%	55%
2002	INTEL		96	-7%	-38%	-30%	-13%	-6%	-1%	6%	38%
2003	INTEL		102	15%	-19%	-6%	7%	11%	21%	76%	90%
2004	INTEL		97	-1%	-31%	-17%	-7%	-1%	4%	12%	46%
2005	INTEL		139	15%	-4%	5%	8%	14%	20%	29%	74%
2006	INTEL		147	10%	-12%	-7%	5%	10%	16%	22%	32%
2007	INTEL		145	14%	-2%	5%	10%	13%	17%	25%	59%
2008	INTEL		161	5%	-13%	-6%	1%	4%	8%	16%	34%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2009	INTEL		163	8%	-9%	0%	4%	7%	11%	20%	31%
2010	INTEL		169	17%	-3%	4%	12%	18%	22%	32%	52%
2001	INTEL		82	-4%	-53%	-41%	-15%	-10%	2%	49%	86%
2002	INTEL		93	-14%	-50%	-43%	-19%	-13%	-7%	3%	48%
2003	INTEL		87	20%	-21%	1%	10%	17%	22%	36%	139%
2004	INTEL		90	-5%	-33%	-22%	-7%	-5%	0%	6%	17%
2005	INTEL		113	17%	-5%	4%	12%	17%	21%	30%	71%
2006	INTEL		121	6%	-23%	-9%	3%	6%	11%	16%	27%
2007	INTEL		129	14%	-4%	4%	10%	13%	18%	27%	49%
2008	INTEL		163	5%	-22%	-12%	0%	5%	9%	17%	40%
2009	INTEL		163	7%	-13%	-1%	2%	7%	11%	21%	24%
2010	INTEL		170	14%	-13%	3%	9%	13%	18%	26%	52%
2001	INTEL		49	-2%	-39%	-27%	-15%	-8%	4%	49%	61%
2002	INTEL		50	-11%	-49%	-43%	-20%	-11%	-5%	22%	59%
2003	INTEL		57	25%	-18%	-13%	11%	19%	26%	123%	137%
2004	INTEL		64	-6%	-26%	-18%	-11%	-6%	-2%	7%	9%
2005	INTEL		66	17%	-8%	4%	11%	13%	20%	46%	82%
2006	INTEL		82	3%	-41%	-14%	-2%	3%	8%	15%	54%
2007	INTEL		93	19%	-11%	9%	14%	16%	23%	48%	65%
2008	INTEL		102	8%	-22%	-4%	2%	7%	13%	25%	46%
2009	INTEL		99	3%	-15%	-8%	-3%	2%	9%	18%	27%
2010	INTEL		112	16%	-1%	8%	12%	15%	20%	28%	54%
2002	INTEL		69	-1%	-13%	-11%	-7%	-1%	3%	11%	19%
2003	INTEL		40	12%	-13%	0%	9%	13%	17%	23%	30%
2004	INTEL		29	2%	-13%	-6%	-1%	3%	5%	9%	13%
2005	INTEL		34	10%	-4%	-3%	2%	9%	16%	23%	24%
2006	INTEL		30	8%	-4%	-4%	0%	6%	13%	23%	25%
2002	INTEL		170	-4%	-21%	-15%	-9%	-5%	0%	13%	22%
2003	INTEL		149	12%	-3%	-1%	8%	11%	16%	23%	41%
2004	INTEL		123	0%	-10%	-8%	-4%	-1%	3%	9%	26%
2005	INTEL		130	10%	-5%	-3%	3%	9%	16%	25%	38%
2006	INTEL		100	10%	-7%	-3%	1%	8%	16%	24%	49%
2007	INTEL		71	12%	1%	3%	7%	10%	19%	24%	33%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2008	INTEL		60	2%	-8%	-5%	-1%	2%	4%	9%	22%
2009	INTEL		62	12%	-1%	1%	7%	10%	18%	24%	30%
2010	INTEL		48	8%	-3%	-1%	4%	6%	10%	21%	23%
2002	INTEL		242	-7%	-31%	-21%	-13%	-6%	-2%	6%	34%
2003	INTEL		210	11%	-7%	-4%	5%	9%	17%	27%	42%
2004	INTEL		207	-4%	-27%	-13%	-7%	-5%	-1%	7%	32%
2005	INTEL		221	7%	-11%	-3%	3%	5%	11%	17%	25%
2006	INTEL		229	5%	-19%	-6%	1%	4%	9%	20%	35%
2007	INTEL		185	9%	-10%	2%	6%	8%	13%	19%	27%
2008	INTEL		161	4%	-11%	-5%	0%	4%	8%	15%	29%
2009	INTEL		158	6%	-7%	-4%	1%	6%	11%	18%	24%
2010	INTEL		144	7%	-7%	-2%	4%	5%	10%	20%	30%
2002	INTEL		159	-8%	-38%	-26%	-16%	-7%	-3%	8%	52%
2003	INTEL		180	11%	-23%	-5%	6%	11%	17%	26%	98%
2004	INTEL		183	-3%	-17%	-12%	-7%	-4%	0%	7%	19%
2005	INTEL		177	7%	-9%	-3%	3%	5%	10%	16%	54%
2006	INTEL		194	4%	-11%	-6%	-1%	2%	8%	20%	42%
2007	INTEL		176	11%	-19%	4%	8%	11%	15%	21%	28%
2008	INTEL		172	5%	-7%	-4%	1%	5%	9%	14%	20%
2009	INTEL		166	5%	-5%	-3%	1%	5%	9%	15%	25%
2010	INTEL		170	7%	-6%	0%	4%	5%	9%	16%	31%
2002	INTEL		43	-8%	-43%	-36%	-14%	-7%	-3%	4%	29%
2003	INTEL		41	11%	-10%	-7%	7%	12%	17%	28%	30%
2004	INTEL		41	-6%	-46%	-16%	-10%	-5%	-3%	9%	11%
2005	INTEL		33	8%	-1%	0%	5%	7%	11%	19%	29%
2006	INTEL		49	0%	-25%	-22%	-4%	0%	6%	16%	31%
2007	INTEL		51	12%	4%	6%	9%	13%	15%	19%	21%
2008	INTEL		71	7%	-12%	-3%	2%	6%	13%	19%	29%
2009	INTEL		64	4%	-11%	-6%	0%	4%	8%	16%	24%
2010	INTEL		66	5%	-3%	1%	3%	5%	7%	13%	20%
2004	INTEL		75	-2%	-19%	-16%	-6%	-2%	3%	12%	17%
2005	INTEL		103	9%	-6%	-1%	3%	8%	15%	19%	24%
2006	INTEL		76	9%	-6%	-4%	2%	8%	16%	21%	26%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2007	INTEL		34	14%	1%	2%	7%	16%	20%	25%	29%
2004	INTEL		60	0%	-10%	-8%	-3%	-1%	2%	13%	21%
2005	INTEL		118	8%	-6%	-2%	3%	7%	14%	22%	31%
2006	INTEL		132	7%	-8%	-3%	1%	5%	12%	21%	28%
2007	INTEL		91	10%	-2%	2%	6%	8%	12%	22%	27%
2008	INTEL		74	0%	-9%	-5%	-2%	0%	3%	6%	9%
2009	INTEL		60	10%	2%	2%	7%	9%	12%	25%	28%
2010	INTEL		56	9%	-2%	-1%	3%	4%	15%	24%	30%
2004	INTEL		65	-4%	-13%	-11%	-6%	-4%	0%	6%	9%
2005	INTEL		127	9%	-7%	0%	3%	7%	11%	28%	34%
2006	INTEL		124	4%	-18%	-7%	1%	3%	6%	15%	21%
2007	INTEL		103	9%	-4%	2%	6%	7%	12%	19%	27%
2008	INTEL		95	3%	-11%	-5%	0%	4%	6%	9%	15%
2009	INTEL		77	6%	-12%	-6%	2%	6%	10%	16%	23%
2010	INTEL		62	5%	-5%	-3%	3%	4%	9%	16%	17%
2004	INTEL		33	-2%	-14%	-13%	-8%	-3%	3%	12%	13%
2005	INTEL		45	9%	-4%	-1%	4%	8%	12%	23%	31%
2006	INTEL		57	3%	-27%	-6%	-1%	3%	6%	16%	22%
2007	INTEL		60	10%	-14%	0%	6%	10%	13%	18%	21%
2008	INTEL		64	4%	-47%	-6%	2%	5%	8%	12%	15%
2009	INTEL		59	7%	-5%	-3%	2%	6%	10%	16%	94%
2010	INTEL		63	6%	-4%	0%	4%	5%	7%	13%	17%
2005	INTEL		33	10%	-4%	-2%	5%	8%	16%	28%	28%
2006	INTEL		34	4%	-11%	-9%	-1%	2%	9%	22%	25%
2007	INTEL		25	9%	-2%	-2%	5%	9%	14%	22%	26%
2009	INTEL		26	8%	-2%	-1%	5%	7%	11%	18%	22%
2010	INTEL		25	4%	-4%	-2%	3%	4%	6%	10%	14%
2005	INTEL		56	10%	-6%	-2%	5%	7%	13%	31%	39%
2006	INTEL		59	4%	-9%	-5%	-1%	2%	9%	17%	27%
2007	INTEL		60	12%	0%	5%	8%	11%	17%	23%	23%
2008	INTEL		55	4%	-22%	-5%	1%	4%	7%	12%	14%
2009	INTEL		57	9%	-1%	-1%	4%	9%	13%	20%	27%
2010	INTEL		52	7%	-3%	-2%	4%	5%	10%	16%	17%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2007	INTEL		28	12%	-5%	-1%	9%	13%	16%	20%	26%
2008	INTEL		36	5%	-14%	-7%	1%	4%	10%	16%	17%
2009	INTEL		37	6%	-9%	-7%	3%	5%	10%	15%	22%
2010	INTEL		51	7%	-4%	-2%	4%	7%	10%	21%	24%
2001	INTEL		34	2%	-14%	-11%	-9%	2%	10%	27%	44%
2001	INTEL		125	0%	-19%	-14%	-9%	-3%	7%	26%	45%
2002	INTEL		117	-4%	-23%	-19%	-9%	-4%	2%	14%	22%
2003	INTEL		93	15%	-6%	-2%	8%	13%	20%	29%	57%
2004	INTEL		75	1%	-18%	-11%	-5%	-1%	4%	22%	29%
2005	INTEL		77	11%	-5%	-1%	5%	10%	16%	24%	27%
2006	INTEL		41	9%	-7%	-6%	3%	7%	16%	32%	35%
2010	INTEL		26	13%	0%	3%	6%	10%	21%	28%	30%
2001	INTEL		126	-5%	-26%	-20%	-13%	-9%	1%	18%	37%
2002	INTEL		141	-7%	-35%	-22%	-13%	-7%	-1%	6%	18%
2003	INTEL		141	10%	-10%	-4%	5%	10%	16%	23%	32%
2004	INTEL		147	-2%	-18%	-12%	-5%	-3%	2%	8%	20%
2005	INTEL		106	8%	-10%	-1%	3%	7%	11%	21%	35%
2006	INTEL		57	7%	-9%	-3%	3%	6%	11%	19%	25%
2007	INTEL		42	12%	-3%	4%	7%	11%	16%	25%	34%
2008	INTEL		30	3%	-11%	-2%	0%	2%	6%	12%	12%
2009	INTEL		31	7%	-4%	-1%	2%	7%	8%	21%	24%
2010	INTEL		32	9%	0%	1%	4%	6%	11%	21%	50%
2001	INTEL		204	-6%	-44%	-25%	-13%	-9%	0%	22%	59%
2002	INTEL		209	-10%	-40%	-37%	-17%	-10%	-4%	8%	64%
2003	INTEL		215	12%	-20%	-13%	7%	11%	18%	30%	98%
2004	INTEL		227	-3%	-31%	-15%	-8%	-4%	1%	8%	46%
2005	INTEL		180	11%	-10%	-1%	5%	10%	16%	27%	43%
2006	INTEL		78	6%	-7%	-4%	-1%	4%	11%	22%	30%
2007	INTEL		51	14%	5%	6%	10%	13%	17%	26%	28%
2008	INTEL		52	4%	-10%	-5%	-1%	3%	7%	14%	15%
2009	INTEL		50	8%	-3%	-1%	3%	8%	11%	18%	24%
2010	INTEL		43	8%	-6%	-2%	2%	6%	14%	21%	31%
2001	INTEL		170	-6%	-46%	-28%	-15%	-11%	0%	40%	59%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2002	INTEL		200	-11%	-64%	-38%	-18%	-11%	-3%	9%	47%
2003	INTEL		189	13%	-19%	-6%	8%	12%	17%	26%	100%
2004	INTEL		182	-4%	-23%	-14%	-8%	-5%	-1%	10%	52%
2005	INTEL		93	10%	-11%	-1%	6%	10%	14%	19%	49%
2006	INTEL		46	2%	-12%	-7%	-3%	0%	6%	14%	25%
2007	INTEL		31	13%	-1%	6%	10%	14%	16%	22%	32%
2008	INTEL		34	6%	-9%	-6%	2%	6%	10%	15%	21%
2009	INTEL		36	6%	-7%	-1%	2%	6%	8%	16%	30%
2010	INTEL		35	6%	0%	0%	2%	5%	7%	15%	21%
2001	INTEL		83	-9%	-47%	-40%	-14%	-10%	-2%	8%	40%
2002	INTEL		101	-12%	-55%	-43%	-20%	-12%	-6%	19%	38%
2003	INTEL		112	14%	-30%	-21%	10%	16%	24%	30%	79%
2004	INTEL		117	-6%	-40%	-17%	-9%	-5%	-1%	6%	14%
2005	INTEL		44	16%	1%	2%	8%	13%	21%	54%	64%
2001	INTEL		46	-9%	-56%	-33%	-15%	-12%	-5%	18%	85%
2002	INTEL		29	-9%	-58%	-52%	-21%	-15%	-7%	81%	82%
2001	INTEL		143	1%	-22%	-11%	-7%	1%	7%	16%	29%
2002	INTEL		128	-3%	-21%	-18%	-8%	-4%	4%	11%	68%
2003	INTEL		95	13%	-15%	-6%	8%	15%	19%	26%	45%
2004	INTEL		80	2%	-12%	-9%	-2%	1%	7%	17%	21%
2005	INTEL		156	17%	-9%	4%	11%	15%	24%	30%	42%
2006	INTEL		174	16%	-6%	1%	12%	16%	22%	29%	34%
2007	INTEL		123	18%	1%	6%	12%	18%	23%	31%	41%
2008	INTEL		103	4%	-7%	-3%	0%	4%	6%	16%	19%
2009	INTEL		125	19%	4%	8%	14%	20%	23%	27%	35%
2010	INTEL		84	18%	-1%	2%	12%	19%	24%	30%	42%
2001	INTEL		702	1%	-32%	-14%	-10%	-4%	10%	25%	73%
2002	INTEL		683	-3%	-27%	-17%	-9%	-4%	2%	12%	35%
2003	INTEL		622	13%	-13%	-2%	7%	12%	18%	26%	42%
2004	INTEL		559	1%	-16%	-10%	-4%	-1%	5%	12%	31%
2005	INTEL		681	14%	-7%	1%	9%	13%	21%	30%	43%
2006	INTEL		728	11%	-9%	-2%	5%	10%	16%	26%	39%
2007	INTEL		739	13%	-11%	3%	7%	11%	19%	27%	43%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2008	INTEL		722	2%	-11%	-5%	-2%	1%	5%	17%	27%
2009	INTEL		818	16%	-13%	5%	11%	16%	21%	27%	50%
2010	INTEL		801	15%	-2%	2%	7%	15%	22%	34%	46%
2001	INTEL		666	-5%	-38%	-19%	-12%	-8%	1%	15%	67%
2002	INTEL		738	-7%	-49%	-22%	-13%	-7%	-1%	8%	46%
2003	INTEL		815	11%	-21%	-5%	6%	10%	16%	25%	87%
2004	INTEL		839	-3%	-19%	-11%	-7%	-4%	0%	7%	40%
2005	INTEL		958	11%	-10%	-2%	6%	10%	15%	23%	38%
2006	INTEL		898	8%	-19%	-3%	3%	7%	12%	20%	43%
2007	INTEL		839	11%	-7%	1%	6%	10%	14%	21%	44%
2008	INTEL		859	3%	-13%	-5%	0%	3%	6%	12%	30%
2009	INTEL		884	8%	-7%	-1%	4%	8%	11%	18%	41%
2010	INTEL		956	8%	-8%	0%	4%	7%	11%	17%	48%
2001	INTEL		760	-5%	-56%	-24%	-13%	-8%	1%	24%	75%
2002	INTEL		832	-8%	-49%	-35%	-14%	-7%	-2%	10%	45%
2003	INTEL		913	12%	-24%	-12%	7%	11%	18%	28%	105%
2004	INTEL		945	-3%	-35%	-13%	-7%	-3%	1%	9%	47%
2005	INTEL		1,113	12%	-10%	-1%	7%	11%	17%	28%	75%
2006	INTEL		1,157	6%	-25%	-5%	1%	5%	10%	20%	69%
2007	INTEL		1,233	13%	-18%	4%	9%	12%	16%	25%	65%
2008	INTEL		1,226	4%	-15%	-5%	0%	4%	8%	14%	27%
2009	INTEL		1,254	8%	-15%	-1%	4%	8%	11%	19%	39%
2010	INTEL		1,298	8%	-13%	1%	4%	7%	11%	19%	42%
2001	INTEL		612	-6%	-53%	-28%	-15%	-10%	0%	32%	76%
2002	INTEL		669	-11%	-58%	-41%	-19%	-10%	-4%	10%	69%
2003	INTEL		730	13%	-35%	-11%	8%	13%	20%	31%	125%
2004	INTEL		776	-4%	-41%	-15%	-8%	-5%	0%	9%	55%
2005	INTEL		851	12%	-21%	0%	7%	11%	16%	26%	83%
2006	INTEL		889	4%	-49%	-8%	-1%	2%	8%	18%	80%
2007	INTEL		925	14%	-20%	3%	10%	13%	17%	27%	87%
2008	INTEL		965	5%	-24%	-7%	1%	5%	10%	17%	41%
2009	INTEL		967	6%	-20%	-3%	1%	6%	10%	19%	44%
2010	INTEL		1,067	8%	-98%	0%	4%	7%	11%	18%	49%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2001	INTEL		355	-5%	-48%	-33%	-15%	-9%	0%	42%	119%
2002	INTEL		387	-11%	-50%	-42%	-20%	-12%	-5%	30%	95%
2003	INTEL		445	15%	-35%	-20%	9%	15%	22%	34%	158%
2004	INTEL		459	-4%	-45%	-16%	-8%	-4%	1%	8%	71%
2005	INTEL		464	15%	-32%	2%	8%	13%	18%	41%	101%
2006	INTEL		524	2%	-32%	-14%	-4%	0%	5%	27%	94%
2007	INTEL		566	16%	-29%	-3%	11%	15%	20%	33%	87%
2008	INTEL		612	9%	-25%	-6%	4%	8%	14%	22%	61%
2009	INTEL		616	3%	-24%	-9%	-2%	2%	8%	17%	51%
2010	INTEL		641	11%	-10%	2%	8%	11%	14%	23%	52%
2005	INTEL		31	15%	-5%	-2%	5%	12%	26%	37%	48%
2005	INTEL		48	14%	-3%	2%	8%	12%	19%	37%	47%
2006	INTEL		52	3%	-12%	-10%	-2%	2%	9%	17%	20%
2007	INTEL		45	9%	-4%	-4%	6%	9%	14%	17%	18%
2008	INTEL		51	4%	-4%	-4%	-1%	4%	8%	14%	16%
2009	INTEL		38	7%	-9%	-3%	2%	7%	11%	23%	26%
2010	INTEL		36	11%	-3%	-1%	3%	10%	17%	32%	35%
2004	INTEL		35	0%	-10%	-10%	-5%	-2%	4%	19%	24%
2005	INTEL		96	13%	-7%	5%	9%	13%	16%	22%	61%
2006	INTEL		98	4%	-12%	-4%	0%	4%	8%	15%	32%
2007	INTEL		85	12%	-2%	1%	7%	10%	15%	24%	53%
2008	INTEL		81	4%	-8%	-4%	0%	4%	8%	11%	17%
2009	INTEL		68	5%	-5%	-4%	2%	4%	9%	15%	17%
2010	INTEL		75	8%	-1%	1%	4%	6%	10%	22%	30%
2005	INTEL		39	15%	5%	6%	8%	11%	16%	44%	67%
2006	INTEL		39	1%	-23%	-19%	-3%	0%	5%	45%	52%
2007	INTEL		46	14%	-17%	3%	10%	15%	18%	23%	50%
2008	INTEL		55	6%	-15%	-3%	2%	6%	10%	13%	17%
2009	INTEL		51	3%	-14%	-3%	-1%	3%	6%	11%	11%
2010	INTEL		56	10%	1%	2%	4%	6%	13%	29%	40%
2008	INTEL		28	9%	-5%	-4%	7%	9%	13%	18%	21%
2010	INTEL		26	13%	5%	5%	9%	11%	15%	24%	36%
2001	INTEL		35	-3%	-24%	-21%	-12%	-9%	5%	27%	41%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2002	INTEL		30	-4%	-26%	-16%	-13%	-4%	4%	11%	13%
2001	INTEL		33	-12%	-26%	-26%	-16%	-12%	-10%	0%	1%
2002	INTEL		34	-7%	-24%	-20%	-13%	-7%	0%	3%	5%
2003	INTEL		30	8%	-21%	-19%	6%	9%	17%	21%	27%
2004	INTEL		27	2%	-10%	-8%	-1%	0%	7%	14%	16%
2005	INTEL		34	10%	-12%	-5%	2%	9%	17%	28%	46%
2006	INTEL		34	3%	-12%	-8%	-4%	-2%	8%	44%	59%
2007	INTEL		34	4%	-54%	-54%	-2%	8%	12%	25%	25%
2005	INTEL		32	10%	-8%	0%	6%	10%	14%	20%	36%
2006	INTEL		29	2%	-8%	-5%	-2%	2%	6%	13%	18%
2004	INTEL		27	-1%	-10%	-9%	-6%	-1%	0%	12%	35%
2005	INTEL		38	10%	-1%	0%	6%	10%	12%	19%	39%
2006	INTEL		45	2%	-9%	-6%	-2%	2%	4%	10%	16%
2007	INTEL		44	11%	4%	5%	7%	10%	14%	20%	20%
2008	INTEL		40	5%	-10%	-5%	1%	5%	9%	16%	26%
2009	INTEL		32	6%	-1%	-1%	0%	6%	10%	17%	17%
2010	INTEL		38	7%	-3%	-2%	4%	7%	10%	19%	19%
2002	INTEL		25	-4%	-19%	-19%	-8%	-5%	1%	6%	9%
2003	INTEL		33	13%	-6%	-3%	8%	11%	19%	27%	30%
2004	INTEL		31	-4%	-14%	-13%	-8%	-5%	-1%	14%	20%
2001	INTEL		32	-5%	-24%	-23%	-12%	-9%	0%	12%	61%
2002	INTEL		27	-11%	-42%	-42%	-16%	-10%	-4%	5%	6%
2003	INTEL		31	12%	-4%	0%	7%	10%	15%	27%	40%
2004	INTEL		27	-4%	-15%	-13%	-8%	-3%	0%	4%	7%
2008	INTEL		25	5%	-9%	-4%	2%	5%	8%	13%	14%
2009	INTEL		25	5%	-4%	-3%	2%	3%	9%	14%	16%
2002	INTEL		25	-7%	-34%	-27%	-15%	-6%	-2%	10%	21%
2002	INTEL		36	-17%	-39%	-38%	-32%	-15%	-6%	5%	41%
2003	INTEL		36	11%	-19%	-17%	-4%	10%	22%	35%	89%
2004	INTEL		32	-2%	-31%	-14%	-8%	-4%	2%	11%	38%
2003	INTEL		25	15%	-18%	-17%	-8%	10%	20%	100%	109%
2004	INTEL		29	1%	-31%	-30%	-8%	-4%	10%	25%	54%
2001	INTEL		341	-5%	-62%	-46%	-17%	-11%	1%	67%	150%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2002	INTEL		341	-11%	-65%	-52%	-23%	-13%	-6%	52%	100%
2003	INTEL		387	30%	-41%	-31%	13%	19%	30%	145%	345%
2004	INTEL		392	-10%	-60%	-50%	-13%	-5%	-1%	8%	86%
2005	INTEL		368	21%	-8%	3%	10%	13%	22%	71%	86%
2006	INTEL		374	2%	-38%	-28%	-9%	-3%	5%	59%	105%
2007	INTEL		380	19%	-29%	-22%	12%	18%	24%	73%	97%
2008	INTEL		369	11%	-31%	-17%	3%	11%	18%	32%	74%
2009	INTEL		344	0%	-30%	-15%	-6%	-1%	4%	15%	89%
2010	INTEL		358	14%	-5%	4%	11%	13%	17%	26%	77%
2001	INTEL		119	-5%	-61%	-44%	-22%	-14%	2%	76%	118%
2002	INTEL		129	-10%	-67%	-58%	-26%	-14%	-5%	58%	113%
2003	INTEL		130	36%	-50%	-39%	13%	22%	35%	158%	259%
2004	INTEL		133	-9%	-53%	-51%	-13%	-4%	1%	13%	116%
2005	INTEL		143	31%	-4%	4%	13%	19%	31%	86%	260%
2006	INTEL		133	3%	-32%	-28%	-9%	-1%	11%	52%	78%
2007	INTEL		144	25%	-27%	-17%	16%	23%	35%	84%	109%
2008	INTEL		145	14%	-31%	-21%	3%	15%	27%	47%	64%
2009	INTEL		147	-4%	-34%	-23%	-13%	-7%	3%	25%	67%
2010	INTEL		143	13%	-11%	0%	9%	11%	17%	27%	97%
2003	INTEL		28	52%	-42%	-39%	20%	28%	109%	175%	183%
2004	INTEL		25	-12%	-57%	-57%	-23%	-6%	2%	19%	19%
2005	INTEL		26	53%	12%	15%	18%	24%	77%	113%	241%
2006	INTEL		33	9%	-41%	-37%	-22%	-7%	5%	81%	239%
2007	INTEL		31	28%	-21%	-18%	11%	33%	42%	91%	97%
2008	INTEL		26	18%	-18%	-14%	11%	17%	30%	40%	62%
2009	INTEL		25	-6%	-25%	-24%	-18%	-6%	0%	13%	15%
2005	INTEL		32	14%	0%	2%	10%	14%	17%	21%	47%
2006	INTEL		26	9%	-2%	-2%	3%	9%	14%	22%	27%
2010	INTEL		36	10%	-2%	0%	7%	9%	17%	19%	20%
2001	INTEL		207	-3%	-49%	-41%	-13%	-9%	4%	44%	80%
2002	INTEL		201	-6%	-41%	-35%	-14%	-4%	2%	15%	57%
2003	INTEL		193	12%	-27%	-8%	8%	12%	18%	28%	44%
2004	INTEL		193	-2%	-31%	-11%	-6%	-3%	2%	9%	13%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2005	INTEL		269	16%	-6%	5%	10%	15%	20%	31%	73%
2006	INTEL		208	9%	-11%	-4%	2%	7%	12%	25%	64%
2007	INTEL		181	16%	-13%	6%	10%	14%	20%	30%	70%
2008	INTEL		139	3%	-18%	-6%	0%	3%	7%	13%	16%
2009	INTEL		168	9%	-6%	0%	5%	9%	13%	19%	24%
2010	INTEL		158	9%	-5%	1%	5%	8%	13%	20%	26%
2001	INTEL		411	-6%	-52%	-23%	-15%	-11%	0%	23%	85%
2002	INTEL		425	-9%	-52%	-39%	-15%	-7%	-2%	9%	61%
2003	INTEL		468	14%	-32%	-5%	9%	14%	20%	32%	91%
2004	INTEL		462	-4%	-43%	-13%	-7%	-4%	-1%	7%	51%
2005	INTEL		545	15%	-13%	2%	8%	12%	18%	36%	79%
2006	INTEL		450	3%	-27%	-11%	-1%	2%	8%	18%	87%
2007	INTEL		394	15%	-21%	1%	11%	14%	19%	30%	65%
2008	INTEL		399	5%	-21%	-7%	2%	6%	10%	16%	41%
2009	INTEL		413	5%	-17%	-5%	1%	5%	10%	18%	33%
2010	INTEL		451	8%	-10%	0%	4%	6%	12%	19%	54%
2001	INTEL		521	-6%	-48%	-28%	-15%	-10%	0%	30%	99%
2002	INTEL		527	-10%	-59%	-42%	-19%	-11%	-4%	26%	73%
2003	INTEL		549	17%	-32%	-19%	10%	17%	23%	40%	169%
2004	INTEL		553	-5%	-43%	-15%	-9%	-5%	-1%	8%	63%
2005	INTEL		645	15%	-26%	1%	7%	11%	16%	52%	92%
2006	INTEL		564	2%	-41%	-19%	-5%	-1%	5%	36%	115%
2007	INTEL		534	17%	-25%	-9%	12%	15%	20%	40%	104%
2008	INTEL		532	8%	-23%	-8%	2%	8%	14%	23%	46%
2009	INTEL		526	3%	-16%	-9%	-2%	2%	7%	15%	46%
2010	INTEL		559	11%	-73%	3%	8%	10%	14%	23%	57%
2005	INTEL		82	24%	-2%	3%	9%	15%	25%	78%	107%
2006	INTEL		93	4%	-32%	-28%	-7%	-1%	6%	60%	77%
2007	INTEL		107	18%	-44%	-21%	11%	18%	26%	72%	88%
2008	INTEL		90	9%	-29%	-21%	5%	12%	19%	28%	34%
2009	INTEL		85	1%	-20%	-12%	-5%	-1%	6%	17%	26%
2010	INTEL		95	13%	-5%	5%	9%	13%	17%	24%	37%
2005	INTEL		27	38%	7%	8%	17%	26%	68%	85%	96%

Appendix B

Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2006	INTEL		31	7%	-35%	-35%	-9%	-1%	21%	65%	82%
2007	INTEL		32	38%	-16%	-8%	17%	29%	36%	127%	141%
2008	INTEL		27	11%	-23%	-23%	-7%	9%	21%	47%	64%
2009	INTEL		26	4%	-23%	-20%	-12%	2%	17%	31%	54%
2005	INTEL		49	17%	-9%	5%	12%	16%	22%	27%	59%
2006	INTEL		37	8%	-2%	-2%	3%	7%	14%	18%	22%
2007	INTEL		42	15%	4%	6%	11%	14%	18%	26%	27%
2008	INTEL		40	5%	-5%	-2%	1%	6%	8%	12%	14%
2009	INTEL		42	7%	-2%	-1%	2%	6%	10%	17%	22%
2010	INTEL		40	10%	0%	1%	6%	10%	14%	22%	24%
2005	INTEL		125	17%	-5%	3%	9%	14%	18%	55%	74%
2006	INTEL		117	8%	-21%	-13%	-1%	4%	11%	51%	63%
2007	INTEL		126	16%	-11%	2%	13%	16%	20%	28%	49%
2008	INTEL		120	5%	-19%	-6%	2%	5%	10%	16%	31%
2009	INTEL		123	6%	-8%	-3%	2%	6%	10%	17%	25%
2010	INTEL		119	9%	-2%	1%	5%	8%	12%	21%	44%
2004	INTEL		34	-6%	-41%	-38%	-9%	-5%	-1%	16%	16%
2005	INTEL		149	14%	-12%	2%	8%	12%	16%	38%	82%
2006	INTEL		151	5%	-27%	-17%	-2%	2%	9%	41%	68%
2007	INTEL		163	18%	-25%	-13%	14%	19%	23%	59%	85%
2008	INTEL		162	9%	-24%	-7%	5%	10%	14%	21%	30%
2009	INTEL		155	2%	-15%	-8%	-2%	1%	6%	14%	34%
2010	INTEL		184	13%	-2%	5%	9%	11%	16%	28%	75%
2001	INTEL		112	1%	-17%	-13%	-7%	0%	9%	24%	34%
2001	INTEL		113	-9%	-24%	-22%	-14%	-11%	-4%	7%	9%
2001	INTEL		88	-3%	-26%	-24%	-13%	-5%	4%	32%	52%
2001	INTEL		33	-18%	-48%	-45%	-21%	-18%	-13%	-1%	9%
2005	INTEL		31	16%	2%	6%	12%	15%	20%	37%	43%
2006	INTEL		30	4%	-12%	-7%	-1%	3%	9%	18%	23%
2005	INTEL		59	13%	-5%	1%	5%	9%	14%	37%	89%
2006	INTEL		68	3%	-18%	-10%	-3%	1%	6%	29%	39%
2007	INTEL		71	13%	-20%	-9%	7%	13%	18%	26%	39%
2008	INTEL		53	7%	-6%	-4%	2%	6%	13%	20%	49%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2009	INTEL		52	5%	-8%	-5%	-1%	4%	9%	17%	22%
2010	INTEL		47	5%	-4%	-3%	2%	4%	6%	14%	18%
2005	INTEL		32	16%	-1%	3%	9%	11%	17%	54%	88%
2006	INTEL		36	0%	-20%	-13%	-7%	-1%	3%	14%	68%
2007	INTEL		37	18%	-1%	5%	11%	16%	22%	50%	61%
2008	INTEL		49	9%	-17%	-3%	1%	9%	15%	22%	38%
2009	INTEL		46	3%	-11%	-8%	-1%	3%	9%	15%	20%
2010	INTEL		50	9%	-1%	2%	7%	9%	12%	17%	19%
2006	INTEL		26	8%	-1%	-1%	1%	7%	14%	19%	22%
2006	INTEL		29	4%	-5%	-5%	-1%	3%	8%	17%	33%
2007	INTEL		29	12%	-1%	7%	10%	11%	14%	23%	28%
2008	INTEL		30	5%	-8%	-6%	0%	6%	10%	23%	24%
2009	INTEL		31	8%	-5%	0%	3%	7%	13%	18%	23%
2010	INTEL		33	8%	0%	1%	4%	7%	10%	18%	28%
2001	INTEL		35	28%	-16%	-6%	7%	30%	41%	66%	99%
2002	INTEL		28	-1%	-25%	-22%	-12%	-5%	9%	23%	38%
2003	INTEL		27	48%	19%	23%	28%	34%	42%	123%	123%
2004	INTEL		25	18%	-1%	-1%	2%	6%	13%	89%	92%
2005	INTEL		35	40%	7%	14%	23%	25%	30%	147%	148%
2006	INTEL		28	4%	-22%	-20%	-16%	-9%	8%	91%	102%
2001	INTEL		58	25%	-69%	-13%	18%	28%	34%	52%	85%
2002	INTEL		46	-1%	-17%	-14%	-10%	-5%	-3%	33%	68%
2003	INTEL		38	25%	-12%	-9%	23%	28%	29%	42%	42%
2004	INTEL		47	5%	-2%	-1%	2%	4%	7%	12%	44%
2005	INTEL		50	33%	2%	19%	21%	22%	25%	124%	136%
2006	INTEL		46	-15%	-24%	-23%	-19%	-18%	-14%	-10%	62%
2007	INTEL		64	52%	13%	29%	32%	36%	46%	130%	175%
2008	INTEL		46	0%	-13%	-10%	-5%	-3%	2%	6%	82%
2009	INTEL		47	28%	16%	17%	20%	22%	25%	86%	132%
2010	INTEL		46	11%	6%	7%	8%	8%	10%	13%	100%
2001	INTEL		132	0%	-14%	-12%	-7%	-1%	5%	16%	27%
2002	INTEL		80	0%	-14%	-14%	-7%	-1%	4%	13%	21%
2003	INTEL		40	13%	-4%	-4%	7%	14%	19%	24%	31%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2004	INTEL		56	2%	-9%	-8%	-2%	1%	6%	22%	26%
2005	INTEL		84	15%	-5%	0%	9%	14%	22%	30%	37%
2006	INTEL		59	9%	-5%	-3%	1%	10%	16%	21%	32%
2007	INTEL		28	15%	2%	3%	7%	16%	23%	27%	30%
2008	INTEL		26	1%	-5%	-5%	-2%	0%	3%	8%	10%
2001	INTEL		233	0%	-27%	-22%	-9%	-5%	8%	27%	69%
2002	INTEL		185	-1%	-25%	-16%	-7%	-1%	4%	16%	28%
2003	INTEL		161	10%	-12%	-2%	6%	9%	15%	24%	30%
2004	INTEL		156	1%	-13%	-9%	-3%	-1%	5%	22%	32%
2005	INTEL		149	10%	-4%	-1%	4%	8%	16%	25%	32%
2006	INTEL		141	7%	-10%	-3%	1%	4%	12%	22%	38%
2007	INTEL		105	14%	-13%	1%	8%	11%	21%	28%	35%
2008	INTEL		94	1%	-9%	-5%	-2%	0%	4%	11%	23%
2009	INTEL		89	12%	1%	4%	8%	11%	17%	23%	28%
2010	INTEL		80	12%	2%	2%	4%	8%	19%	29%	39%
2001	INTEL		256	-7%	-37%	-28%	-14%	-9%	1%	14%	50%
2002	INTEL		219	-8%	-41%	-27%	-15%	-7%	-1%	7%	32%
2003	INTEL		204	11%	-24%	-10%	6%	10%	17%	23%	91%
2004	INTEL		199	-2%	-29%	-12%	-5%	-2%	1%	11%	41%
2005	INTEL		184	10%	-9%	-1%	4%	9%	15%	26%	35%
2006	INTEL		174	5%	-8%	-3%	0%	3%	9%	17%	24%
2007	INTEL		131	11%	-3%	1%	7%	11%	15%	23%	41%
2008	INTEL		123	3%	-12%	-4%	0%	3%	6%	12%	23%
2009	INTEL		112	8%	-5%	-2%	4%	8%	13%	20%	25%
2010	INTEL		90	7%	-5%	-2%	3%	5%	12%	19%	29%
2001	INTEL		259	-7%	-47%	-36%	-18%	-12%	1%	31%	71%
2002	INTEL		229	-9%	-43%	-37%	-16%	-9%	-2%	13%	69%
2003	INTEL		181	13%	-26%	-9%	7%	11%	19%	31%	101%
2004	INTEL		189	-1%	-29%	-12%	-6%	-3%	2%	13%	49%
2005	INTEL		193	11%	-19%	0%	6%	9%	16%	26%	41%
2006	INTEL		194	5%	-11%	-6%	-1%	2%	10%	18%	57%
2007	INTEL		182	14%	-1%	5%	9%	12%	17%	27%	60%
2008	INTEL		162	4%	-15%	-6%	0%	3%	8%	13%	30%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2009	INTEL		157	9%	-5%	-1%	5%	8%	12%	21%	27%
2010	INTEL		169	8%	-19%	1%	5%	7%	12%	18%	34%
2001	INTEL		164	-7%	-52%	-29%	-18%	-12%	0%	41%	57%
2002	INTEL		174	-12%	-54%	-41%	-20%	-12%	-5%	9%	73%
2003	INTEL		142	15%	-28%	-8%	9%	13%	22%	34%	131%
2004	INTEL		157	-3%	-37%	-17%	-9%	-5%	-1%	13%	62%
2005	INTEL		134	14%	-6%	1%	9%	12%	17%	33%	42%
2006	INTEL		134	2%	-17%	-10%	-3%	0%	6%	15%	37%
2007	INTEL		129	11%	-18%	0%	9%	12%	15%	21%	46%
2008	INTEL		128	5%	-15%	-5%	0%	5%	9%	16%	33%
2009	INTEL		136	6%	-40%	-4%	1%	6%	10%	17%	71%
2010	INTEL		137	8%	-4%	0%	4%	6%	9%	20%	46%
2001	INTEL		70	-14%	-47%	-40%	-20%	-14%	-9%	16%	40%
2002	INTEL		66	-11%	-56%	-39%	-19%	-10%	-4%	11%	79%
2003	INTEL		63	20%	-27%	-19%	9%	14%	23%	133%	174%
2004	INTEL		73	-7%	-43%	-19%	-12%	-6%	-2%	6%	16%
2005	INTEL		69	18%	-11%	-1%	9%	13%	23%	47%	61%
2006	INTEL		68	0%	-29%	-17%	-5%	-3%	4%	32%	57%
2007	INTEL		69	14%	-18%	-13%	9%	14%	18%	34%	49%
2008	INTEL		63	9%	-16%	-6%	0%	10%	15%	26%	48%
2009	INTEL		70	3%	-13%	-10%	-2%	2%	8%	17%	23%
2010	INTEL		80	11%	0%	3%	8%	10%	13%	21%	26%
2001	INTEL		95	-2%	-23%	-13%	-10%	-3%	5%	16%	22%
2002	INTEL		71	-2%	-20%	-13%	-7%	-3%	4%	11%	21%
2003	INTEL		50	13%	0%	5%	9%	13%	18%	23%	28%
2004	INTEL		31	4%	-7%	-6%	-1%	4%	6%	16%	26%
2005	INTEL		49	10%	-4%	-1%	3%	10%	15%	21%	25%
2006	INTEL		51	11%	-2%	-2%	4%	11%	16%	24%	28%
2001	INTEL		122	-2%	-18%	-15%	-11%	-4%	6%	16%	44%
2002	INTEL		107	-3%	-23%	-17%	-9%	-3%	3%	15%	22%
2003	INTEL		122	12%	-10%	0%	8%	10%	16%	24%	32%
2004	INTEL		133	-1%	-13%	-9%	-5%	-2%	4%	9%	23%
2005	INTEL		122	8%	-4%	-3%	3%	7%	11%	22%	29%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2006	INTEL		103	7%	-9%	-4%	1%	4%	13%	21%	25%
2007	INTEL		70	13%	1%	6%	8%	11%	18%	26%	28%
2008	INTEL		56	1%	-9%	-6%	-1%	1%	3%	8%	10%
2009	INTEL		44	13%	1%	5%	7%	11%	18%	24%	33%
2010	INTEL		43	12%	-6%	-2%	4%	10%	19%	28%	37%
2001	INTEL		108	-6%	-26%	-22%	-15%	-10%	3%	11%	59%
2002	INTEL		97	-5%	-31%	-19%	-11%	-6%	-2%	11%	35%
2003	INTEL		101	12%	-15%	-4%	7%	11%	17%	26%	44%
2004	INTEL		100	-5%	-26%	-15%	-7%	-5%	-1%	8%	11%
2005	INTEL		95	8%	-7%	0%	3%	8%	12%	19%	34%
2006	INTEL		93	4%	-15%	-6%	0%	4%	9%	16%	20%
2007	INTEL		85	11%	-4%	2%	6%	9%	15%	24%	45%
2008	INTEL		66	3%	-12%	-3%	0%	2%	6%	11%	13%
2009	INTEL		54	6%	-7%	-2%	3%	5%	8%	14%	18%
2010	INTEL		57	5%	-6%	-3%	2%	4%	8%	16%	21%
2001	INTEL		35	-7%	-19%	-18%	-13%	-8%	-2%	6%	13%
2002	INTEL		38	-6%	-38%	-37%	-14%	-6%	-2%	26%	37%
2003	INTEL		57	12%	-16%	-2%	8%	13%	17%	25%	31%
2004	INTEL		53	-3%	-14%	-13%	-7%	-4%	1%	13%	28%
2005	INTEL		53	10%	-2%	0%	4%	8%	14%	27%	32%
2006	INTEL		49	4%	-8%	-6%	-1%	2%	7%	16%	33%
2007	INTEL		53	14%	-1%	5%	8%	13%	16%	26%	60%
2008	INTEL		55	6%	-9%	-5%	2%	7%	10%	13%	32%
2009	INTEL		50	5%	-7%	-4%	0%	5%	10%	15%	17%
2010	INTEL		53	7%	-11%	1%	4%	6%	9%	14%	37%
2001	INTEL		51	-5%	-54%	-22%	-16%	-11%	-4%	67%	69%
2002	INTEL		65	-21%	-57%	-53%	-28%	-16%	-12%	-2%	48%
2003	INTEL		65	34%	-27%	1%	13%	21%	31%	140%	162%
2004	INTEL		62	-12%	-57%	-53%	-15%	-7%	-4%	4%	22%
2005	INTEL		80	18%	-1%	4%	9%	12%	18%	62%	71%
2006	INTEL		74	-1%	-33%	-30%	-13%	-5%	0%	60%	96%
2007	INTEL		78	18%	-27%	-22%	11%	16%	24%	79%	92%
2008	INTEL		62	11%	-26%	-24%	2%	12%	19%	32%	34%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2009	INTEL		60	0%	-17%	-14%	-10%	-3%	6%	17%	111%
2010	INTEL		68	12%	-13%	2%	10%	12%	15%	23%	29%
2005	INTEL		31	31%	5%	8%	11%	17%	57%	82%	88%
2008	INTEL		26	21%	-23%	-17%	5%	21%	37%	54%	55%
2009	INTEL		26	-11%	-32%	-27%	-21%	-10%	-4%	7%	14%
2001	INTEL		148	-3%	-50%	-37%	-13%	-8%	1%	41%	77%
2002	INTEL		137	-8%	-43%	-35%	-15%	-6%	1%	13%	38%
2003	INTEL		104	13%	-29%	-3%	8%	11%	21%	29%	77%
2004	INTEL		96	-3%	-36%	-11%	-6%	-3%	1%	10%	12%
2005	INTEL		147	13%	-2%	4%	8%	13%	18%	26%	47%
2006	INTEL		82	7%	-6%	-5%	0%	6%	12%	22%	59%
2007	INTEL		52	14%	4%	5%	9%	15%	18%	23%	24%
2008	INTEL		46	5%	-5%	-3%	0%	5%	8%	14%	17%
2009	INTEL		48	8%	-3%	-1%	4%	7%	12%	19%	21%
2010	INTEL		41	10%	0%	2%	4%	9%	16%	24%	31%
2001	INTEL		203	-5%	-48%	-25%	-14%	-10%	4%	32%	53%
2002	INTEL		226	-11%	-49%	-42%	-18%	-10%	-4%	10%	60%
2003	INTEL		199	14%	-34%	-15%	8%	13%	20%	36%	102%
2004	INTEL		176	-5%	-20%	-14%	-8%	-5%	-1%	7%	25%
2005	INTEL		250	13%	-6%	3%	7%	11%	16%	26%	74%
2006	INTEL		171	4%	-17%	-7%	-2%	1%	6%	25%	62%
2007	INTEL		146	13%	-10%	1%	9%	12%	15%	29%	71%
2008	INTEL		123	5%	-23%	-8%	0%	5%	10%	16%	24%
2009	INTEL		129	5%	-12%	-5%	0%	4%	10%	15%	28%
2010	INTEL		136	7%	-9%	0%	3%	6%	9%	20%	34%
2001	INTEL		123	-5%	-47%	-31%	-15%	-11%	0%	39%	105%
2002	INTEL		140	-12%	-50%	-40%	-22%	-13%	-6%	26%	58%
2003	INTEL		155	16%	-34%	-17%	11%	16%	22%	38%	142%
2004	INTEL		138	-5%	-21%	-15%	-7%	-5%	-2%	6%	12%
2005	INTEL		174	13%	-5%	1%	6%	10%	14%	58%	78%
2006	INTEL		167	2%	-27%	-11%	-5%	-1%	4%	47%	80%
2007	INTEL		161	16%	-24%	-11%	9%	14%	18%	53%	92%
2008	INTEL		149	7%	-20%	-12%	1%	8%	13%	22%	39%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2009	INTEL		143	3%	-15%	-8%	-2%	3%	7%	14%	22%
2010	INTEL		159	11%	-2%	4%	8%	10%	13%	20%	34%
2001	INTEL		33	-16%	-51%	-42%	-27%	-20%	-7%	11%	90%
2002	INTEL		38	-14%	-70%	-57%	-26%	-19%	-9%	78%	110%
2003	INTEL		39	42%	-35%	-33%	13%	23%	40%	145%	182%
2004	INTEL		37	-13%	-55%	-55%	-15%	-6%	-1%	17%	17%
2005	INTEL		37	28%	-6%	3%	17%	22%	29%	93%	128%
2006	INTEL		41	7%	-37%	-32%	-10%	-5%	10%	87%	94%
2007	INTEL		39	37%	-20%	-18%	19%	32%	60%	93%	96%
2008	INTEL		36	12%	-32%	-23%	1%	16%	21%	40%	65%
2009	INTEL		42	-5%	-34%	-26%	-14%	-8%	-2%	33%	44%
2010	INTEL		44	12%	-15%	-14%	5%	12%	17%	41%	53%
2001	INTEL		46	1%	-12%	-11%	-8%	-2%	4%	23%	62%
2002	INTEL		36	-4%	-27%	-25%	-13%	-3%	2%	13%	16%
2003	INTEL		28	11%	-1%	-1%	6%	9%	16%	22%	22%
2004	INTEL		26	3%	-8%	-6%	-1%	0%	7%	16%	16%
2005	INTEL		81	4%	-7%	-5%	0%	3%	7%	17%	23%
2006	INTEL		77	7%	-6%	-5%	1%	4%	15%	22%	49%
2007	INTEL		36	14%	-3%	-1%	7%	14%	21%	32%	35%
2002	INTEL		25	0%	-13%	-10%	-4%	0%	5%	9%	12%
2003	INTEL		35	17%	1%	4%	9%	18%	22%	34%	37%
2004	INTEL		33	1%	-10%	-7%	-3%	-1%	5%	13%	14%
2005	INTEL		76	6%	-7%	-4%	1%	5%	10%	18%	21%
2006	INTEL		77	5%	-6%	-4%	1%	3%	8%	20%	23%
2007	INTEL		77	13%	0%	3%	7%	12%	17%	28%	31%
2008	INTEL		61	1%	-8%	-6%	-2%	1%	4%	8%	9%
2009	INTEL		61	10%	-1%	0%	5%	9%	12%	27%	31%
2010	INTEL		48	9%	-3%	-2%	4%	5%	15%	22%	27%
2004	INTEL		25	-5%	-19%	-11%	-8%	-5%	-2%	6%	8%
2005	INTEL		45	7%	-2%	-1%	3%	7%	10%	15%	21%
2006	INTEL		59	4%	-14%	-5%	0%	3%	10%	19%	23%
2007	INTEL		71	9%	-4%	2%	5%	8%	12%	18%	28%
2008	INTEL		70	3%	-4%	-3%	-1%	2%	7%	13%	19%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2009	INTEL		60	5%	-6%	-5%	2%	5%	8%	11%	17%
2010	INTEL		54	5%	-5%	-3%	3%	4%	9%	13%	18%
2007	INTEL		28	9%	-2%	3%	7%	9%	11%	14%	25%
2008	INTEL		35	4%	-5%	-4%	1%	4%	7%	12%	13%
2009	INTEL		25	4%	-4%	-3%	0%	4%	8%	14%	16%
2001	INTEL		26	-11%	-50%	-23%	-17%	-14%	-8%	12%	39%
2002	INTEL		37	-8%	-30%	-29%	-14%	-8%	-4%	10%	46%
2003	INTEL		54	11%	-25%	-4%	9%	11%	17%	21%	27%
2004	INTEL		55	-5%	-34%	-13%	-8%	-5%	-2%	4%	9%
2005	INTEL		49	8%	-10%	-2%	3%	6%	12%	24%	51%
2001	INTEL		32	0%	-12%	-11%	-9%	-3%	8%	18%	46%
2001	INTEL		56	1%	-25%	-17%	-9%	-2%	9%	26%	48%
2002	INTEL		52	-3%	-26%	-16%	-9%	-4%	0%	13%	31%
2003	INTEL		32	13%	0%	1%	8%	10%	20%	25%	31%
2004	INTEL		29	4%	-10%	-9%	-4%	1%	9%	32%	36%
2005	INTEL		30	10%	-4%	-3%	3%	9%	18%	26%	28%
2006	INTEL		31	5%	-7%	-5%	1%	2%	9%	26%	28%
2007	INTEL		28	13%	6%	6%	7%	11%	19%	28%	29%
2008	INTEL		27	1%	-5%	-5%	-1%	2%	3%	8%	8%
2001	INTEL		56	-8%	-40%	-30%	-15%	-10%	-1%	12%	68%
2002	INTEL		56	-4%	-29%	-21%	-13%	-3%	3%	14%	19%
2003	INTEL		57	13%	-5%	-4%	8%	10%	17%	26%	83%
2004	INTEL		56	-4%	-30%	-17%	-8%	-4%	0%	8%	10%
2005	INTEL		53	9%	-6%	-5%	3%	7%	14%	29%	32%
2006	INTEL		50	4%	-6%	-4%	0%	2%	7%	11%	39%
2007	INTEL		54	9%	2%	4%	6%	9%	13%	16%	25%
2008	INTEL		54	4%	-11%	-8%	-1%	4%	8%	12%	21%
2009	INTEL		44	5%	-11%	-4%	1%	5%	8%	18%	22%
2010	INTEL		45	6%	-3%	-2%	4%	4%	8%	15%	17%
2001	INTEL		34	-5%	-25%	-21%	-12%	-10%	0%	39%	42%
2002	INTEL		39	-8%	-47%	-44%	-14%	-5%	2%	11%	16%
2003	INTEL		37	13%	0%	1%	8%	13%	16%	26%	27%
2004	INTEL		40	-2%	-12%	-12%	-6%	-4%	0%	9%	40%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2005	INTEL		27	9%	-2%	0%	5%	8%	13%	17%	21%
2006	INTEL		32	4%	-5%	-4%	-3%	3%	7%	17%	40%
2007	INTEL		27	12%	1%	5%	10%	12%	16%	20%	23%
2008	INTEL		31	4%	-7%	-6%	-1%	7%	8%	14%	14%
2009	INTEL		28	4%	-5%	-5%	1%	3%	7%	15%	17%
2010	INTEL		33	6%	1%	2%	4%	6%	8%	15%	16%
2001	INTEL		77	6%	-3%	2%	4%	6%	7%	10%	18%
2002	INTEL		73	7%	-18%	0%	2%	7%	10%	19%	23%
2003	INTEL		38	12%	4%	4%	8%	12%	16%	20%	22%
2005	INTEL		37	16%	0%	0%	10%	17%	21%	28%	38%
2006	INTEL		34	25%	5%	13%	19%	26%	30%	37%	41%
2001	INTEL		166	6%	-13%	3%	4%	6%	7%	11%	54%
2002	INTEL		152	3%	-11%	1%	2%	2%	3%	9%	14%
2003	INTEL		161	11%	-3%	4%	7%	10%	13%	20%	30%
2004	INTEL		141	2%	-3%	-2%	0%	1%	3%	9%	13%
2005	INTEL		112	12%	0%	0%	8%	11%	17%	24%	48%
2006	INTEL		81	17%	-3%	-2%	12%	16%	23%	31%	47%
2007	INTEL		72	14%	1%	5%	9%	14%	20%	27%	28%
2008	INTEL		77	0%	-5%	-5%	-3%	-2%	-2%	12%	12%
2009	INTEL		75	14%	4%	7%	10%	12%	19%	24%	26%
2010	INTEL		62	7%	-4%	2%	5%	6%	8%	18%	31%
2001	INTEL		204	15%	-11%	2%	5%	6%	9%	72%	83%
2002	INTEL		211	8%	-17%	1%	2%	2%	3%	41%	47%
2003	INTEL		205	13%	-1%	5%	8%	9%	12%	39%	49%
2004	INTEL		212	4%	-17%	-2%	0%	1%	4%	20%	80%
2005	INTEL		222	12%	-6%	3%	6%	9%	15%	35%	48%
2006	INTEL		213	13%	-3%	-2%	9%	12%	17%	33%	39%
2007	INTEL		203	16%	3%	4%	10%	13%	18%	40%	48%
2008	INTEL		194	-2%	-9%	-5%	-3%	-3%	-2%	6%	12%
2009	INTEL		188	12%	2%	6%	10%	11%	12%	23%	25%
2010	INTEL		186	7%	2%	3%	5%	5%	7%	17%	26%
2001	INTEL		187	-6%	-17%	-15%	-8%	-6%	-3%	0%	10%
2002	INTEL		216	-7%	-36%	-30%	-10%	-3%	0%	3%	13%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2003	INTEL		249	7%	-12%	-7%	5%	8%	10%	17%	47%
2004	INTEL		261	-3%	-21%	-11%	-4%	-3%	-1%	4%	24%
2005	INTEL		287	7%	-5%	-1%	3%	6%	9%	15%	32%
2006	INTEL		282	6%	-10%	-3%	2%	5%	8%	18%	45%
2007	INTEL		302	10%	0%	4%	7%	9%	12%	20%	56%
2008	INTEL		319	-1%	-12%	-10%	-3%	0%	2%	5%	18%
2009	INTEL		307	8%	-3%	2%	5%	8%	10%	13%	33%
2010	INTEL		317	5%	-2%	2%	4%	5%	6%	10%	14%
2007	INTEL		29	13%	2%	4%	9%	11%	14%	23%	60%
2008	INTEL		25	4%	-3%	-3%	1%	4%	8%	11%	14%
2001	INTEL		27	4%	-9%	-8%	-6%	1%	10%	21%	36%
2001	INTEL		81	0%	-15%	-12%	-9%	-5%	7%	26%	40%
2002	INTEL		67	-2%	-24%	-20%	-8%	-2%	5%	13%	35%
2003	INTEL		57	14%	-2%	-1%	9%	14%	21%	27%	30%
2004	INTEL		51	2%	-10%	-5%	-1%	1%	6%	10%	12%
2005	INTEL		27	15%	2%	3%	10%	15%	22%	25%	38%
2001	INTEL		89	-3%	-22%	-17%	-12%	-6%	2%	19%	64%
2002	INTEL		70	-3%	-27%	-21%	-9%	-4%	2%	14%	37%
2003	INTEL		63	12%	-7%	1%	7%	11%	16%	23%	69%
2004	INTEL		79	-4%	-30%	-14%	-9%	-5%	-1%	7%	42%
2005	INTEL		68	10%	-9%	-3%	6%	10%	13%	24%	28%
2006	INTEL		51	5%	-4%	-2%	1%	5%	9%	13%	21%
2007	INTEL		38	11%	-3%	0%	6%	11%	15%	23%	32%
2008	INTEL		35	2%	-10%	-5%	0%	1%	3%	9%	14%
2009	INTEL		32	8%	-1%	0%	5%	7%	11%	15%	29%
2010	INTEL		25	7%	-10%	-8%	4%	7%	12%	18%	18%
2001	INTEL		59	-10%	-43%	-42%	-18%	-12%	-3%	15%	48%
2002	INTEL		68	-6%	-43%	-32%	-13%	-6%	3%	14%	43%
2003	INTEL		70	13%	-22%	-1%	6%	12%	19%	25%	79%
2004	INTEL		83	-3%	-27%	-12%	-6%	-4%	1%	8%	20%
2005	INTEL		63	14%	-4%	-1%	7%	12%	17%	36%	51%
2006	INTEL		60	6%	-14%	-7%	-1%	3%	11%	31%	83%
2007	INTEL		54	11%	-8%	2%	8%	10%	15%	22%	32%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2008	INTEL		46	3%	-5%	-3%	0%	2%	6%	9%	13%
2009	INTEL		40	7%	-5%	-4%	3%	6%	10%	16%	17%
2010	INTEL		43	8%	1%	2%	4%	6%	10%	17%	21%
2001	INTEL		30	-5%	-51%	-44%	-14%	-11%	0%	55%	68%
2002	INTEL		27	-10%	-40%	-36%	-15%	-8%	-5%	8%	20%
2003	INTEL		27	9%	-22%	-17%	5%	13%	19%	28%	32%
2004	INTEL		32	-1%	-15%	-12%	-7%	-3%	2%	11%	41%
2005	INTEL		29	12%	-1%	1%	9%	10%	15%	26%	28%
2006	INTEL		28	1%	-6%	-5%	-3%	0%	4%	12%	19%
2007	INTEL		25	12%	-4%	5%	9%	11%	17%	22%	22%
2005	INTEL		25	13%	6%	6%	10%	12%	14%	19%	21%
2010	INTEL		27	6%	-4%	0%	3%	5%	11%	13%	13%
2005	INTEL		38	8%	2%	3%	3%	9%	12%	16%	16%
2004	INTEL		38	5%	-3%	-3%	1%	2%	8%	24%	24%
2005	INTEL		125	7%	0%	2%	3%	4%	12%	16%	17%
2006	INTEL		94	4%	-3%	0%	1%	1%	6%	16%	19%
2007	INTEL		68	10%	4%	6%	7%	8%	11%	21%	24%
2008	INTEL		61	-2%	-5%	-4%	-3%	-2%	-2%	5%	7%
2009	INTEL		116	13%	5%	8%	11%	11%	14%	21%	24%
2010	INTEL		98	10%	1%	3%	7%	8%	13%	18%	29%
2004	INTEL		66	2%	-14%	-1%	0%	1%	3%	10%	11%
2005	INTEL		144	6%	0%	3%	3%	4%	8%	17%	18%
2006	INTEL		164	4%	-4%	0%	0%	2%	7%	16%	27%
2007	INTEL		125	10%	3%	5%	7%	9%	10%	20%	42%
2008	INTEL		121	-2%	-11%	-5%	-3%	-3%	-2%	-1%	24%
2009	INTEL		177	11%	-2%	9%	10%	11%	11%	14%	21%
2010	INTEL		188	6%	1%	3%	5%	6%	7%	13%	16%
2004	INTEL		27	3%	-2%	-1%	0%	0%	3%	16%	17%
2005	INTEL		49	7%	2%	2%	3%	5%	6%	37%	37%
2006	INTEL		50	2%	0%	0%	1%	2%	3%	6%	16%
2007	INTEL		57	9%	4%	5%	7%	7%	9%	19%	23%
2008	INTEL		59	-5%	-62%	-6%	-3%	-3%	-2%	-1%	-1%
2009	INTEL		43	11%	6%	9%	10%	11%	11%	14%	15%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2010	INTEL		49	7%	3%	3%	5%	7%	9%	13%	13%
2001	INTEL		78	0%	-24%	-11%	-8%	-2%	8%	13%	68%
2002	INTEL		60	-3%	-22%	-15%	-7%	-3%	2%	9%	18%
2003	INTEL		45	21%	-1%	1%	15%	23%	28%	33%	34%
2004	INTEL		53	0%	-12%	-9%	-7%	-1%	6%	14%	20%
2005	INTEL		84	11%	-8%	-1%	6%	12%	17%	23%	27%
2006	INTEL		62	5%	-13%	-6%	-2%	3%	14%	18%	25%
2007	INTEL		39	13%	3%	3%	7%	11%	20%	25%	26%
2008	INTEL		41	2%	-6%	-5%	-1%	3%	6%	10%	11%
2009	INTEL		27	12%	-1%	4%	6%	11%	18%	21%	24%
2001	INTEL		148	-2%	-18%	-16%	-11%	-6%	5%	19%	46%
2002	INTEL		147	-3%	-28%	-16%	-10%	-4%	1%	11%	22%
2003	INTEL		147	23%	-3%	8%	18%	24%	30%	39%	45%
2004	INTEL		129	1%	-12%	-8%	-2%	0%	5%	11%	32%
2005	INTEL		204	9%	-5%	-2%	3%	7%	16%	24%	34%
2006	INTEL		176	7%	-9%	-5%	1%	4%	14%	22%	31%
2007	INTEL		100	11%	-9%	3%	6%	9%	15%	24%	32%
2008	INTEL		106	0%	-10%	-8%	-3%	0%	3%	9%	13%
2009	INTEL		93	11%	-6%	2%	6%	10%	15%	26%	36%
2010	INTEL		75	7%	-3%	0%	4%	5%	9%	21%	22%
2001	INTEL		60	-10%	-24%	-21%	-14%	-11%	-6%	5%	9%
2002	INTEL		87	-10%	-28%	-21%	-15%	-10%	-4%	2%	4%
2003	INTEL		133	22%	-1%	5%	16%	22%	27%	39%	46%
2004	INTEL		154	-3%	-21%	-13%	-6%	-4%	-1%	7%	40%
2005	INTEL		216	8%	-7%	-3%	3%	7%	11%	22%	34%
2006	INTEL		192	4%	-9%	-3%	0%	2%	7%	15%	29%
2007	INTEL		178	8%	-14%	-1%	6%	8%	12%	17%	26%
2008	INTEL		160	4%	-12%	-4%	0%	4%	7%	12%	30%
2009	INTEL		133	5%	-10%	-5%	1%	4%	8%	16%	26%
2010	INTEL		126	6%	-7%	-2%	3%	5%	8%	16%	19%
2005	INTEL		26	10%	1%	1%	6%	9%	16%	26%	26%
2006	INTEL		44	3%	-19%	-12%	-1%	4%	8%	13%	15%
2007	INTEL		52	10%	2%	4%	7%	9%	13%	18%	19%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2008	INTEL		59	4%	-8%	-5%	0%	4%	7%	11%	29%
2009	INTEL		53	5%	-3%	-1%	1%	4%	7%	13%	39%
2010	INTEL		56	6%	-1%	1%	3%	4%	8%	13%	15%
2003	INTEL		26	11%	-14%	-11%	5%	12%	17%	27%	68%
2001	INTEL		34	-6%	-24%	-20%	-14%	-10%	2%	10%	58%
2003	INTEL		28	10%	-16%	-10%	6%	8%	16%	35%	35%
2004	INTEL		26	-5%	-17%	-11%	-8%	-4%	-2%	4%	8%
2001	INTEL		42	2%	-15%	-12%	-7%	-1%	8%	19%	24%
2002	INTEL		35	1%	-20%	-11%	-7%	0%	8%	17%	26%
2001	INTEL		155	-1%	-19%	-14%	-10%	-6%	7%	26%	33%
2002	INTEL		128	-1%	-16%	-14%	-7%	-3%	2%	16%	26%
2003	INTEL		92	13%	-8%	-1%	8%	12%	19%	26%	36%
2004	INTEL		74	2%	-9%	-8%	-3%	1%	6%	13%	15%
2005	INTEL		69	13%	-6%	-4%	8%	12%	20%	26%	32%
2006	INTEL		56	9%	-5%	-3%	1%	6%	15%	29%	33%
2007	INTEL		47	14%	-2%	6%	8%	12%	20%	26%	29%
2008	INTEL		42	2%	-10%	-7%	-2%	1%	3%	22%	24%
2009	INTEL		41	14%	-1%	3%	9%	11%	19%	27%	29%
2010	INTEL		41	12%	1%	2%	4%	9%	18%	29%	33%
2001	INTEL		192	-10%	-39%	-24%	-19%	-13%	-5%	9%	50%
2002	INTEL		166	-8%	-36%	-19%	-15%	-8%	-2%	7%	16%
2003	INTEL		118	12%	-9%	-3%	6%	11%	17%	27%	63%
2004	INTEL		84	-2%	-17%	-13%	-6%	-2%	0%	9%	30%
2005	INTEL		77	10%	-2%	1%	6%	9%	14%	26%	31%
2006	INTEL		75	3%	-11%	-9%	-1%	2%	7%	19%	21%
2007	INTEL		67	10%	-11%	2%	6%	9%	14%	23%	44%
2008	INTEL		68	3%	-11%	-4%	-1%	3%	7%	13%	25%
2009	INTEL		62	6%	-3%	-1%	3%	6%	8%	15%	22%
2010	INTEL		62	8%	-3%	1%	4%	5%	11%	21%	31%
2001	INTEL		127	-8%	-45%	-25%	-15%	-11%	0%	16%	40%
2002	INTEL		123	-11%	-45%	-30%	-18%	-9%	-4%	5%	11%
2003	INTEL		103	11%	-18%	-5%	7%	10%	16%	24%	42%
2004	INTEL		96	-5%	-28%	-13%	-9%	-4%	-1%	8%	12%

Appendix B

Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2005	INTEL		88	12%	-3%	3%	7%	9%	18%	27%	38%
2006	INTEL		81	4%	-14%	-7%	-1%	4%	9%	17%	33%
2007	INTEL		66	14%	2%	4%	9%	12%	17%	29%	34%
2008	INTEL		65	5%	-5%	-4%	0%	3%	7%	25%	27%
2009	INTEL		63	7%	-3%	-2%	2%	6%	11%	20%	35%
2010	INTEL		63	9%	-3%	2%	5%	6%	11%	20%	26%
2001	INTEL		110	-11%	-42%	-28%	-18%	-13%	-6%	12%	39%
2002	INTEL		101	-12%	-49%	-42%	-17%	-10%	-5%	5%	31%
2003	INTEL		87	12%	-20%	-8%	1%	12%	21%	33%	78%
2004	INTEL		65	-4%	-37%	-15%	-8%	-4%	0%	8%	16%
2005	INTEL		48	11%	-3%	-2%	6%	10%	14%	19%	63%
2006	INTEL		49	2%	-16%	-9%	-4%	1%	7%	13%	28%
2007	INTEL		27	15%	-6%	5%	12%	15%	17%	22%	31%
2008	INTEL		30	9%	-3%	-1%	4%	8%	12%	23%	32%
2009	INTEL		26	5%	-8%	-5%	2%	5%	9%	12%	14%
2010	INTEL		30	9%	-2%	1%	5%	7%	10%	28%	37%
2001	INTEL		30	-1%	-18%	-17%	-14%	-2%	3%	28%	50%
2002	INTEL		27	-16%	-62%	-40%	-33%	-21%	-10%	22%	83%
2001	INTEL		27	0%	-17%	-17%	-8%	-3%	6%	12%	27%
2001	INTEL		115	-3%	-23%	-14%	-9%	-6%	1%	17%	44%
2002	INTEL		91	-3%	-19%	-17%	-8%	-4%	0%	14%	40%
2003	INTEL		58	10%	-8%	-5%	4%	9%	14%	25%	26%
2004	INTEL		43	0%	-8%	-8%	-5%	-1%	4%	8%	8%
2005	INTEL		35	8%	0%	1%	3%	5%	12%	21%	25%
2006	INTEL		35	1%	-13%	-6%	0%	1%	4%	8%	9%
2007	INTEL		28	12%	3%	3%	6%	10%	15%	25%	33%
2008	INTEL		29	0%	-8%	-7%	-3%	-1%	3%	8%	9%
2009	INTEL		28	12%	-1%	5%	7%	9%	14%	24%	32%
2010	INTEL		26	6%	-2%	-1%	4%	4%	6%	21%	21%
2001	INTEL		83	-8%	-21%	-19%	-15%	-12%	-2%	8%	18%
2002	INTEL		70	-4%	-26%	-22%	-11%	-4%	3%	14%	19%
2003	INTEL		54	10%	-12%	-1%	6%	10%	16%	22%	24%
2004	INTEL		61	-4%	-21%	-12%	-7%	-5%	0%	5%	12%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2005	INTEL		57	7%	-7%	-2%	3%	6%	11%	16%	18%
2006	INTEL		64	3%	-10%	-9%	0%	2%	8%	15%	21%
2007	INTEL		49	9%	-4%	4%	7%	8%	12%	20%	26%
2008	INTEL		42	2%	-8%	-5%	-1%	1%	5%	11%	12%
2009	INTEL		40	7%	-12%	-4%	2%	7%	11%	17%	21%
2010	INTEL		43	6%	-5%	0%	3%	5%	9%	16%	28%
2001	INTEL		67	-7%	-45%	-31%	-16%	-12%	2%	26%	35%
2002	INTEL		63	-9%	-48%	-35%	-17%	-6%	-1%	9%	16%
2003	INTEL		60	12%	-6%	-5%	7%	11%	18%	26%	31%
2004	INTEL		56	-3%	-20%	-11%	-7%	-4%	-1%	8%	9%
2005	INTEL		46	6%	-7%	-5%	4%	5%	10%	17%	20%
2006	INTEL		43	1%	-9%	-8%	-4%	-1%	6%	14%	15%
2007	INTEL		46	10%	-1%	1%	8%	10%	13%	19%	21%
2008	INTEL		47	7%	-4%	-1%	3%	6%	10%	18%	20%
2009	INTEL		43	4%	-6%	-4%	1%	3%	6%	14%	17%
2010	INTEL		41	6%	-2%	-1%	4%	4%	8%	15%	18%
2001	INTEL		29	-10%	-40%	-19%	-15%	-13%	-4%	6%	10%
2002	INTEL		28	-10%	-32%	-29%	-15%	-8%	-5%	4%	21%
2003	INTEL		28	9%	-23%	-7%	7%	10%	13%	28%	30%
2004	INTEL		25	-6%	-16%	-14%	-11%	-6%	-3%	2%	11%
2010	INTEL		27	5%	-5%	0%	2%	4%	7%	11%	11%
2002	INTEL		28	5%	-11%	-10%	-1%	5%	13%	15%	16%
2003	INTEL		35	13%	-5%	-3%	7%	14%	19%	25%	31%
2004	INTEL		36	2%	-8%	-6%	-3%	-1%	5%	29%	30%
2005	INTEL		63	14%	-3%	3%	8%	16%	20%	27%	33%
2006	INTEL		37	8%	-7%	-3%	2%	6%	10%	28%	39%
2007	INTEL		30	10%	2%	4%	6%	8%	11%	21%	26%
2008	INTEL		29	1%	-4%	-3%	-1%	1%	4%	9%	15%
2009	INTEL		28	13%	2%	6%	9%	10%	15%	30%	36%
2001	INTEL		34	-4%	-20%	-16%	-12%	-8%	0%	17%	41%
2002	INTEL		39	-1%	-18%	-16%	-11%	-4%	2%	54%	59%
2003	INTEL		54	11%	-6%	-3%	7%	10%	17%	24%	33%
2004	INTEL		59	-3%	-23%	-15%	-5%	-4%	0%	6%	15%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2005	INTEL		53	8%	-4%	0%	2%	6%	12%	30%	32%
2006	INTEL		40	9%	-9%	0%	4%	8%	11%	22%	25%
2007	INTEL		31	8%	-2%	-1%	3%	9%	12%	16%	17%
2008	INTEL		27	5%	-7%	-4%	1%	5%	11%	14%	20%
2009	INTEL		27	5%	-6%	-5%	0%	4%	8%	15%	16%
2010	INTEL		30	7%	0%	0%	4%	4%	10%	16%	18%
2001	INTEL		47	-11%	-43%	-39%	-16%	-12%	-5%	6%	36%
2002	INTEL		62	-11%	-39%	-38%	-16%	-8%	-4%	8%	21%
2003	INTEL		98	15%	-20%	-15%	4%	12%	21%	79%	83%
2004	INTEL		123	-4%	-45%	-27%	-12%	-4%	1%	31%	46%
2005	INTEL		152	10%	-6%	-2%	5%	8%	14%	31%	39%
2006	INTEL		161	7%	-13%	-4%	2%	7%	11%	18%	20%
2007	INTEL		139	11%	-1%	4%	7%	10%	15%	22%	28%
2008	INTEL		121	4%	-11%	-5%	0%	4%	7%	16%	25%
2009	INTEL		124	10%	-4%	0%	6%	10%	14%	19%	27%
2010	INTEL		137	9%	-4%	3%	5%	9%	13%	17%	28%
2001	INTEL		46	-7%	-50%	-45%	-15%	-11%	5%	18%	45%
2002	INTEL		36	-6%	-39%	-29%	-16%	-8%	-2%	34%	59%
2003	INTEL		46	11%	-26%	-21%	8%	12%	18%	31%	33%
2004	INTEL		56	-6%	-17%	-14%	-11%	-6%	-3%	4%	5%
2005	INTEL		53	11%	-4%	2%	5%	9%	12%	38%	45%
2006	INTEL		44	4%	-14%	-8%	-1%	2%	7%	16%	44%
2007	INTEL		46	13%	-17%	5%	9%	11%	16%	44%	49%
2008	INTEL		45	5%	-22%	-6%	1%	5%	9%	20%	24%
2009	INTEL		45	5%	-12%	-5%	2%	7%	9%	16%	16%
2010	INTEL		61	7%	-2%	0%	4%	6%	11%	16%	20%
2008	INTEL		26	5%	-9%	-3%	1%	3%	7%	22%	25%
2009	INTEL		29	13%	-1%	4%	10%	12%	15%	22%	39%
2010	INTEL		35	11%	-2%	1%	5%	7%	19%	28%	31%
2005	INTEL		39	8%	-9%	-4%	5%	7%	11%	21%	25%
2006	INTEL		34	5%	-9%	-9%	1%	2%	9%	19%	20%
2007	INTEL		32	11%	0%	1%	6%	8%	14%	28%	34%
2008	INTEL		29	1%	-12%	-10%	-1%	0%	5%	18%	26%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2009	INTEL		34	8%	-1%	0%	4%	8%	10%	18%	22%
2002	INTEL		26	-9%	-36%	-20%	-15%	-7%	-2%	3%	4%
2003	INTEL		29	7%	-16%	-14%	5%	8%	10%	18%	34%
2004	INTEL		26	-4%	-18%	-12%	-8%	-4%	1%	6%	8%
2005	INTEL		55	11%	-6%	-3%	4%	9%	19%	25%	32%
2006	INTEL		43	5%	-4%	-3%	0%	2%	9%	17%	18%
2007	INTEL		39	12%	2%	3%	8%	11%	15%	25%	25%
2008	INTEL		32	5%	-6%	-4%	1%	5%	8%	14%	26%
2009	INTEL		30	6%	-4%	-2%	4%	6%	8%	13%	17%
2010	INTEL		30	10%	1%	3%	4%	8%	15%	26%	26%
2005	INTEL		25	9%	-3%	-3%	5%	8%	14%	25%	25%
2006	INTEL		26	2%	-14%	-5%	-4%	3%	8%	11%	14%
2006	INTEL		25	-4%	-28%	-19%	-7%	-4%	1%	3%	12%
2007	INTEL		51	14%	-18%	5%	9%	14%	16%	25%	56%
2008	INTEL		62	7%	-26%	-18%	4%	8%	12%	21%	40%
2009	INTEL		50	5%	-9%	-8%	-2%	4%	9%	18%	47%
2010	INTEL		60	11%	-2%	1%	8%	10%	13%	23%	27%
2001	INTEL		69	-1%	-60%	-32%	-18%	-13%	5%	76%	104%
2002	INTEL		219	-15%	-65%	-53%	-27%	-16%	-7%	35%	88%
2003	INTEL		360	23%	-43%	-31%	12%	19%	27%	119%	181%
2004	INTEL		427	-6%	-55%	-46%	-10%	-4%	2%	18%	91%
2005	INTEL		485	21%	-6%	3%	10%	14%	22%	70%	186%
2006	INTEL		547	1%	-38%	-29%	-8%	-3%	5%	52%	92%
2007	INTEL		583	20%	-25%	-18%	13%	17%	24%	64%	116%
2008	INTEL		591	10%	-37%	-18%	3%	11%	18%	29%	60%
2009	INTEL		583	0%	-24%	-14%	-5%	0%	6%	14%	43%
2010	INTEL		582	14%	-4%	6%	11%	13%	17%	25%	69%
2001	INTEL		37	-12%	-59%	-33%	-23%	-18%	-2%	15%	76%
2002	INTEL		51	-7%	-66%	-49%	-23%	-12%	-2%	62%	79%
2004	INTEL		99	-6%	-59%	-51%	-9%	-3%	2%	25%	37%
2005	INTEL		115	31%	-4%	8%	14%	18%	37%	92%	147%
2006	INTEL		127	4%	-37%	-33%	-8%	0%	9%	65%	91%
2007	INTEL		145	22%	-24%	-16%	17%	22%	31%	53%	101%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2008	INTEL		168	18%	-29%	-13%	6%	18%	29%	49%	68%
2009	INTEL		160	-5%	-33%	-25%	-13%	-7%	1%	18%	36%
2010	INTEL		178	13%	-6%	0%	9%	11%	15%	27%	68%
2001	INTEL		400	-1%	-26%	-12%	-9%	-3%	5%	13%	51%
2002	INTEL		316	-2%	-25%	-18%	-7%	-3%	4%	13%	39%
2003	INTEL		206	11%	-8%	-2%	6%	11%	17%	25%	42%
2004	INTEL		172	2%	-19%	-9%	-2%	1%	6%	13%	28%
2005	INTEL		164	12%	-4%	0%	6%	12%	17%	24%	42%
2006	INTEL		161	11%	-7%	-3%	4%	12%	17%	23%	39%
2007	INTEL		114	14%	-3%	1%	7%	16%	21%	27%	33%
2008	INTEL		114	2%	-9%	-6%	-2%	1%	6%	10%	18%
2009	INTEL		129	16%	2%	5%	10%	16%	22%	29%	30%
2010	INTEL		98	16%	0%	3%	6%	18%	21%	31%	38%
2001	INTEL		515	0%	-27%	-14%	-9%	-3%	6%	25%	74%
2002	INTEL		548	-4%	-29%	-16%	-9%	-5%	0%	12%	33%
2003	INTEL		554	11%	-9%	-2%	6%	10%	15%	23%	46%
2004	INTEL		577	-1%	-19%	-10%	-5%	-3%	3%	11%	33%
2005	INTEL		450	13%	-6%	0%	6%	12%	19%	26%	46%
2006	INTEL		355	7%	-11%	-5%	1%	5%	13%	21%	29%
2007	INTEL		314	11%	-5%	0%	6%	9%	14%	24%	34%
2008	INTEL		333	1%	-10%	-5%	-2%	0%	3%	8%	24%
2009	INTEL		342	13%	-4%	2%	7%	10%	19%	26%	34%
2010	INTEL		332	11%	-3%	2%	4%	6%	19%	28%	53%
2001	INTEL		397	-4%	-27%	-21%	-12%	-7%	2%	16%	61%
2002	INTEL		402	-7%	-40%	-23%	-13%	-7%	-2%	8%	64%
2003	INTEL		392	11%	-22%	-3%	7%	10%	16%	23%	63%
2004	INTEL		407	-2%	-29%	-14%	-7%	-4%	0%	9%	49%
2005	INTEL		312	13%	-7%	0%	7%	12%	18%	30%	39%
2006	INTEL		383	6%	-12%	-4%	1%	4%	9%	19%	33%
2007	INTEL		347	10%	-7%	2%	6%	9%	14%	20%	31%
2008	INTEL		305	4%	-16%	-5%	0%	3%	7%	13%	32%
2009	INTEL		322	7%	-8%	-3%	2%	7%	10%	19%	43%
2010	INTEL		328	8%	-8%	0%	4%	6%	11%	20%	43%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2001	INTEL		652	-9%	-52%	-26%	-18%	-11%	-2%	24%	58%
2002	INTEL		726	-12%	-50%	-37%	-21%	-11%	-3%	9%	76%
2003	INTEL		722	14%	-28%	-14%	6%	11%	19%	42%	103%
2004	INTEL		599	-3%	-36%	-22%	-11%	-5%	1%	42%	46%
2005	INTEL		301	13%	-8%	0%	7%	11%	18%	35%	60%
2006	INTEL		319	6%	-18%	-5%	1%	6%	11%	17%	40%
2007	INTEL		304	12%	0%	3%	8%	11%	15%	23%	53%
2008	INTEL		332	5%	-12%	-5%	0%	4%	8%	15%	35%
2009	INTEL		329	7%	-10%	-2%	2%	7%	11%	18%	42%
2010	INTEL		388	9%	-6%	0%	4%	7%	13%	24%	45%
2001	INTEL		255	-6%	-54%	-32%	-15%	-11%	1%	44%	77%
2002	INTEL		291	-10%	-47%	-42%	-16%	-10%	-4%	28%	71%
2003	INTEL		277	13%	-31%	-10%	8%	13%	21%	32%	114%
2004	INTEL		211	-3%	-49%	-15%	-8%	-5%	-1%	13%	56%
2005	INTEL		133	14%	-9%	-1%	8%	12%	17%	40%	56%
2006	INTEL		139	1%	-24%	-14%	-4%	1%	5%	13%	39%
2007	INTEL		103	12%	-13%	1%	9%	11%	17%	23%	28%
2008	INTEL		111	4%	-16%	-9%	0%	4%	9%	17%	37%
2009	INTEL		106	5%	-8%	-6%	0%	5%	9%	13%	25%
2010	INTEL		110	7%	-8%	-2%	3%	5%	9%	17%	39%
2001	INTEL		107	-3%	-41%	-32%	-16%	-10%	5%	58%	85%
2002	INTEL		105	-11%	-51%	-45%	-20%	-12%	-5%	27%	78%
2003	INTEL		97	18%	-24%	-14%	10%	15%	26%	35%	145%
2004	INTEL		83	-4%	-32%	-18%	-8%	-5%	1%	11%	68%
2005	INTEL		45	13%	-12%	-4%	7%	10%	15%	45%	63%
2006	INTEL		35	0%	-25%	-24%	-5%	-2%	6%	15%	43%
2007	INTEL		27	13%	-20%	-10%	11%	15%	18%	22%	23%
2008	INTEL		39	10%	-12%	-12%	2%	8%	14%	45%	48%
2009	INTEL		40	3%	-22%	-10%	-1%	2%	10%	25%	25%
2010	INTEL		31	9%	-1%	0%	5%	8%	10%	16%	53%
2005	INTEL		34	14%	-1%	1%	8%	16%	20%	26%	31%
2006	INTEL		47	13%	-3%	-2%	7%	13%	18%	26%	32%
2007	INTEL		38	13%	-2%	1%	7%	13%	21%	25%	26%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2008	INTEL		25	-1%	-8%	-6%	-4%	-2%	0%	4%	6%
2009	INTEL		25	13%	3%	6%	9%	12%	19%	23%	24%
2005	INTEL		122	11%	-9%	1%	6%	10%	16%	25%	29%
2006	INTEL		142	7%	-9%	-5%	1%	6%	12%	21%	35%
2007	INTEL		144	11%	-1%	3%	6%	9%	14%	25%	29%
2008	INTEL		140	1%	-8%	-5%	-1%	2%	4%	8%	14%
2009	INTEL		130	13%	-1%	2%	7%	12%	18%	27%	42%
2010	INTEL		96	12%	-1%	2%	5%	9%	18%	25%	30%
2005	INTEL		128	10%	-9%	-4%	6%	10%	15%	23%	31%
2006	INTEL		157	5%	-9%	-4%	1%	4%	9%	17%	31%
2007	INTEL		175	9%	-15%	-1%	5%	8%	12%	22%	45%
2008	INTEL		153	4%	-10%	-4%	0%	4%	7%	14%	22%
2009	INTEL		155	7%	-7%	-4%	2%	6%	12%	19%	32%
2010	INTEL		161	7%	-11%	0%	4%	6%	11%	19%	24%
2004	INTEL		151	-5%	-48%	-29%	-15%	-4%	0%	36%	46%
2005	INTEL		560	12%	-16%	-4%	5%	10%	17%	35%	64%
2006	INTEL		640	6%	-14%	-5%	1%	6%	10%	18%	60%
2007	INTEL		651	14%	-5%	4%	9%	12%	17%	34%	60%
2008	INTEL		427	5%	-13%	-6%	0%	4%	8%	17%	55%
2009	INTEL		537	13%	-10%	0%	7%	13%	19%	23%	31%
2010	INTEL		513	10%	-6%	2%	5%	8%	14%	25%	39%
2004	INTEL		79	-3%	-39%	-17%	-8%	-5%	2%	8%	51%
2005	INTEL		176	14%	-9%	1%	7%	11%	17%	43%	68%
2006	INTEL		260	2%	-26%	-14%	-3%	0%	5%	19%	54%
2007	INTEL		291	14%	-26%	1%	10%	13%	17%	31%	64%
2008	INTEL		175	5%	-57%	-8%	1%	5%	10%	18%	53%
2009	INTEL		166	5%	-8%	-4%	0%	4%	8%	17%	29%
2010	INTEL		181	6%	-8%	-1%	4%	5%	8%	15%	34%
2005	INTEL		49	13%	-5%	2%	7%	9%	17%	32%	83%
2006	INTEL		73	0%	-29%	-27%	-8%	-1%	5%	28%	78%
2007	INTEL		79	17%	-33%	-16%	13%	16%	19%	37%	83%
2008	INTEL		40	8%	-17%	-12%	3%	8%	14%	24%	28%
2009	INTEL		37	3%	-23%	-13%	-4%	1%	8%	30%	43%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2010	INTEL		35	12%	3%	5%	7%	10%	16%	24%	24%
2001	INTEL		53	1%	-20%	-11%	-6%	-1%	7%	13%	27%
2002	INTEL		69	-2%	-24%	-17%	-9%	-3%	5%	13%	18%
2003	INTEL		62	14%	-8%	-5%	6%	14%	21%	39%	49%
2004	INTEL		75	3%	-17%	-10%	-2%	1%	8%	25%	29%
2005	INTEL		109	12%	-3%	3%	8%	11%	14%	26%	34%
2006	INTEL		93	12%	-6%	-1%	5%	12%	20%	26%	33%
2007	INTEL		66	15%	-1%	1%	8%	12%	22%	28%	31%
2008	INTEL		48	1%	-7%	-5%	-2%	1%	3%	10%	14%
2009	INTEL		48	15%	4%	4%	10%	14%	20%	26%	28%
2010	INTEL		45	16%	-1%	3%	7%	15%	25%	30%	31%
2001	INTEL		80	2%	-16%	-14%	-8%	-2%	9%	28%	40%
2002	INTEL		134	-3%	-29%	-21%	-9%	-3%	3%	13%	25%
2003	INTEL		159	13%	-12%	-2%	7%	11%	19%	26%	54%
2004	INTEL		173	5%	-23%	-8%	-2%	3%	8%	25%	38%
2005	INTEL		270	10%	-9%	0%	4%	8%	15%	24%	31%
2006	INTEL		265	7%	-9%	-6%	1%	6%	12%	23%	32%
2007	INTEL		245	13%	-1%	2%	7%	11%	19%	27%	34%
2008	INTEL		194	1%	-9%	-5%	-2%	1%	3%	8%	25%
2009	INTEL		211	13%	-10%	2%	8%	11%	18%	24%	38%
2010	INTEL		185	12%	-6%	2%	5%	9%	18%	29%	45%
2001	INTEL		77	-3%	-38%	-19%	-11%	-5%	3%	17%	44%
2002	INTEL		123	-5%	-35%	-22%	-9%	-5%	1%	10%	21%
2003	INTEL		163	11%	-12%	-4%	6%	10%	17%	25%	31%
2004	INTEL		174	0%	-20%	-11%	-4%	-1%	4%	12%	46%
2005	INTEL		222	7%	-9%	-5%	3%	7%	12%	20%	33%
2006	INTEL		215	4%	-12%	-7%	0%	4%	8%	14%	25%
2007	INTEL		214	11%	-11%	0%	7%	11%	15%	24%	42%
2008	INTEL		220	4%	-8%	-4%	1%	4%	6%	13%	27%
2009	INTEL		217	7%	-8%	-3%	3%	7%	11%	16%	33%
2010	INTEL		232	7%	-9%	-2%	4%	5%	9%	16%	50%
2001	INTEL		62	-6%	-50%	-24%	-13%	-6%	1%	15%	46%
2002	INTEL		97	-8%	-54%	-36%	-13%	-6%	0%	8%	27%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2003	INTEL		143	13%	-18%	-5%	8%	12%	18%	27%	39%
2004	INTEL		174	1%	-21%	-12%	-4%	0%	3%	14%	48%
2005	INTEL		246	9%	-11%	-2%	5%	8%	13%	21%	71%
2006	INTEL		242	3%	-11%	-6%	-2%	3%	7%	13%	41%
2007	INTEL		227	16%	0%	7%	11%	14%	19%	29%	64%
2008	INTEL		205	5%	-11%	-4%	1%	5%	8%	14%	26%
2009	INTEL		202	7%	-11%	-2%	2%	6%	9%	21%	40%
2010	INTEL		211	8%	-4%	1%	4%	6%	10%	17%	45%
2001	INTEL		42	-5%	-44%	-25%	-13%	-10%	2%	24%	56%
2002	INTEL		79	-12%	-46%	-43%	-16%	-11%	-6%	3%	49%
2003	INTEL		106	14%	-23%	-5%	8%	12%	21%	31%	37%
2004	INTEL		102	-4%	-18%	-15%	-8%	-4%	-1%	12%	15%
2005	INTEL		126	11%	-8%	-3%	6%	9%	14%	25%	68%
2006	INTEL		133	0%	-20%	-12%	-4%	-1%	3%	13%	46%
2007	INTEL		142	15%	-23%	1%	11%	14%	18%	29%	70%
2008	INTEL		150	6%	-16%	-6%	2%	7%	10%	16%	36%
2009	INTEL		142	5%	-11%	-4%	0%	4%	9%	16%	41%
2010	INTEL		153	7%	-6%	1%	3%	5%	10%	18%	43%
2002	INTEL		34	-7%	-53%	-51%	-18%	-11%	1%	56%	58%
2003	INTEL		36	24%	-31%	-26%	11%	18%	27%	155%	194%
2004	INTEL		51	-5%	-42%	-18%	-11%	-5%	1%	9%	19%
2005	INTEL		41	14%	-1%	1%	6%	9%	15%	58%	82%
2006	INTEL		49	-1%	-23%	-16%	-5%	-2%	2%	12%	40%
2007	INTEL		49	15%	-16%	-2%	13%	16%	20%	29%	33%
2008	INTEL		50	8%	-25%	-6%	4%	9%	14%	20%	26%
2009	INTEL		49	2%	-9%	-7%	-2%	1%	4%	15%	26%
2010	INTEL		58	11%	-21%	0%	8%	10%	14%	19%	88%
2001	INTEL		41	0%	-14%	-13%	-9%	-2%	4%	35%	46%
2001	INTEL		83	1%	-14%	-13%	-9%	-2%	8%	25%	48%
2002	INTEL		52	-3%	-19%	-16%	-9%	-4%	2%	14%	20%
2003	INTEL		42	12%	-2%	-1%	5%	11%	18%	32%	34%
2004	INTEL		39	2%	-7%	-5%	-2%	1%	3%	15%	23%
2005	INTEL		36	8%	-1%	0%	3%	6%	11%	25%	25%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2006	INTEL		34	3%	-9%	-1%	1%	2%	6%	9%	10%
2001	INTEL		89	-7%	-23%	-20%	-14%	-11%	-1%	9%	49%
2002	INTEL		67	-6%	-24%	-18%	-11%	-5%	-2%	5%	17%
2003	INTEL		53	8%	-13%	-10%	5%	9%	15%	19%	21%
2004	INTEL		44	-3%	-19%	-10%	-7%	-4%	2%	8%	9%
2005	INTEL		35	6%	-2%	-1%	1%	3%	11%	19%	33%
2006	INTEL		32	4%	-7%	-7%	-1%	3%	8%	16%	20%
2001	INTEL		87	-7%	-51%	-23%	-13%	-8%	-2%	10%	45%
2002	INTEL		64	-9%	-37%	-29%	-16%	-10%	-3%	7%	58%
2003	INTEL		38	17%	-18%	-11%	8%	12%	21%	96%	109%
2004	INTEL		32	-1%	-34%	-11%	-3%	-1%	4%	10%	13%
2005	INTEL		26	8%	-8%	-8%	3%	9%	12%	19%	22%
2001	INTEL		48	-8%	-54%	-21%	-15%	-9%	-2%	7%	57%
2002	INTEL		38	-8%	-26%	-23%	-14%	-9%	-4%	4%	38%
2003	INTEL		32	16%	-23%	-18%	8%	15%	22%	37%	89%
2003	INTEL		25	34%	-34%	-33%	13%	19%	30%	169%	175%
2005	INTEL		29	23%	8%	8%	10%	13%	28%	66%	66%
2008	INTEL		26	14%	-25%	-19%	6%	15%	24%	31%	51%
2009	INTEL		26	-2%	-17%	-14%	-9%	-1%	2%	14%	19%
2001	INTEL		53	-1%	-43%	-24%	-13%	-8%	7%	56%	71%
2002	INTEL		48	-7%	-49%	-45%	-20%	-14%	-2%	57%	96%
2003	INTEL		38	18%	-30%	-27%	3%	15%	21%	161%	161%
2004	INTEL		41	-6%	-39%	-17%	-12%	-5%	1%	11%	12%
2005	INTEL		54	23%	0%	2%	8%	14%	20%	85%	88%
2006	INTEL		27	2%	-24%	-24%	-4%	1%	2%	47%	47%
2008	INTEL		25	12%	-2%	0%	7%	9%	16%	23%	32%
2002	INTEL		27	-6%	-57%	-53%	-26%	-13%	-4%	72%	87%
2003	INTEL		56	38%	-45%	-44%	13%	19%	27%	149%	206%
2004	INTEL		55	-11%	-58%	-51%	-12%	-6%	-1%	7%	9%
2005	INTEL		75	17%	0%	5%	9%	12%	16%	61%	66%
2006	INTEL		74	0%	-40%	-19%	-8%	-4%	1%	43%	68%
2007	INTEL		101	19%	-25%	-17%	12%	17%	26%	73%	92%
2008	INTEL		88	9%	-25%	-17%	3%	10%	17%	26%	53%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2009	INTEL		84	-1%	-26%	-13%	-5%	0%	6%	12%	23%
2010	INTEL		82	12%	-3%	5%	10%	11%	15%	21%	32%
2005	INTEL		46	14%	-3%	0%	7%	14%	21%	25%	28%
2006	INTEL		61	9%	-3%	0%	3%	6%	14%	23%	28%
2007	INTEL		53	14%	3%	5%	7%	11%	19%	27%	30%
2008	INTEL		46	0%	-5%	-4%	-2%	0%	2%	8%	13%
2009	INTEL		47	14%	-4%	1%	8%	13%	19%	31%	37%
2010	INTEL		36	10%	2%	3%	5%	9%	14%	22%	25%
2004	INTEL		50	-3%	-18%	-14%	-6%	-4%	-1%	11%	18%
2005	INTEL		140	11%	-2%	1%	7%	10%	15%	28%	35%
2006	INTEL		194	7%	-9%	-3%	2%	5%	12%	20%	42%
2007	INTEL		190	11%	-3%	3%	6%	11%	15%	21%	31%
2008	INTEL		154	4%	-12%	-7%	0%	4%	8%	14%	29%
2009	INTEL		143	7%	-7%	-2%	3%	6%	11%	18%	23%
2010	INTEL		133	7%	-5%	0%	4%	5%	9%	19%	35%
2001	INTEL		80	-8%	-54%	-25%	-16%	-11%	-3%	21%	61%
2002	INTEL		178	-11%	-45%	-33%	-17%	-10%	-4%	6%	10%
2003	INTEL		196	12%	-16%	-5%	7%	11%	18%	26%	89%
2004	INTEL		202	-1%	-17%	-12%	-6%	-3%	1%	13%	48%
2005	INTEL		328	12%	-9%	1%	7%	11%	16%	27%	57%
2006	INTEL		395	3%	-14%	-7%	-2%	2%	7%	17%	24%
2007	INTEL		406	12%	-5%	3%	8%	11%	16%	24%	60%
2008	INTEL		354	5%	-12%	-4%	0%	4%	7%	15%	29%
2009	INTEL		342	6%	-9%	-3%	2%	6%	10%	17%	30%
2010	INTEL		318	6%	-4%	0%	4%	5%	9%	16%	28%
2001	INTEL		57	-13%	-44%	-43%	-18%	-14%	-6%	10%	41%
2002	INTEL		169	-9%	-44%	-27%	-16%	-9%	-4%	5%	48%
2003	INTEL		229	14%	-28%	-6%	8%	13%	20%	32%	114%
2004	INTEL		237	-4%	-39%	-15%	-8%	-5%	0%	9%	78%
2005	INTEL		341	13%	-7%	1%	8%	11%	16%	27%	65%
2006	INTEL		418	2%	-26%	-10%	-3%	0%	6%	15%	56%
2007	INTEL		482	12%	-18%	2%	9%	11%	15%	24%	53%
2008	INTEL		468	6%	-17%	-5%	2%	6%	10%	18%	38%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2009	INTEL		441	4%	-30%	-6%	0%	4%	8%	15%	28%
2010	INTEL		441	7%	-73%	0%	4%	5%	9%	18%	57%
2001	INTEL		34	-10%	-46%	-43%	-18%	-8%	1%	23%	48%
2002	INTEL		68	-7%	-47%	-42%	-16%	-9%	-5%	61%	85%
2003	INTEL		119	21%	-31%	-18%	10%	17%	29%	95%	150%
2004	INTEL		141	-5%	-46%	-19%	-10%	-5%	0%	12%	25%
2005	INTEL		207	13%	-34%	3%	8%	11%	16%	33%	61%
2006	INTEL		248	0%	-33%	-19%	-7%	-2%	4%	26%	82%
2007	INTEL		309	15%	-27%	0%	10%	15%	19%	36%	67%
2008	INTEL		309	8%	-44%	-11%	3%	8%	15%	25%	49%
2009	INTEL		287	2%	-20%	-11%	-4%	1%	6%	16%	27%
2010	INTEL		307	11%	-12%	0%	7%	9%	14%	27%	57%
2001	INTEL		31	3%	-15%	-12%	-5%	-1%	9%	23%	42%
2001	INTEL		83	3%	-15%	-11%	-7%	-1%	8%	25%	89%
2002	INTEL		73	-5%	-24%	-20%	-8%	-3%	0%	7%	12%
2003	INTEL		54	10%	-8%	-3%	5%	9%	12%	28%	54%
2004	INTEL		36	-1%	-8%	-7%	-3%	-2%	2%	8%	10%
2001	INTEL		90	-9%	-22%	-19%	-14%	-11%	-3%	6%	10%
2002	INTEL		94	-6%	-33%	-20%	-12%	-5%	1%	9%	16%
2003	INTEL		80	12%	-13%	-5%	7%	9%	17%	23%	62%
2004	INTEL		74	-4%	-36%	-14%	-10%	-5%	-1%	7%	48%
2001	INTEL		145	-9%	-54%	-25%	-16%	-11%	-4%	10%	41%
2002	INTEL		135	-6%	-41%	-28%	-14%	-5%	1%	9%	53%
2003	INTEL		115	15%	-21%	2%	9%	12%	20%	29%	108%
2004	INTEL		130	-4%	-33%	-16%	-10%	-4%	2%	10%	47%
2005	INTEL		34	12%	-2%	1%	5%	9%	15%	35%	38%
2006	INTEL		39	4%	-6%	-3%	-1%	4%	6%	14%	20%
2007	INTEL		28	11%	-1%	3%	6%	11%	14%	20%	29%
2008	INTEL		27	5%	-15%	-14%	1%	5%	9%	14%	36%
2010	INTEL		28	9%	-2%	0%	4%	6%	8%	25%	43%
2001	INTEL		88	-12%	-54%	-28%	-19%	-13%	-5%	7%	60%
2002	INTEL		80	-10%	-44%	-32%	-17%	-9%	-4%	5%	63%
2003	INTEL		86	13%	-34%	-8%	9%	13%	21%	27%	40%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2004	INTEL		86	-5%	-40%	-15%	-9%	-5%	-2%	8%	12%
2002	INTEL		26	-10%	-47%	-44%	-21%	-12%	-1%	15%	44%
2006	INTEL		30	7%	-8%	-6%	2%	7%	12%	21%	28%
2007	INTEL		33	12%	3%	4%	7%	10%	19%	21%	22%
2010	INTEL		26	14%	-1%	-1%	5%	11%	23%	34%	36%
2006	INTEL		43	7%	-8%	-2%	1%	7%	11%	19%	31%
2007	INTEL		36	10%	-2%	-1%	5%	9%	14%	21%	26%
2008	INTEL		34	4%	-10%	-5%	1%	3%	8%	14%	14%
2009	INTEL		38	6%	-6%	-5%	2%	7%	11%	20%	21%
2010	INTEL		25	7%	-2%	0%	3%	4%	13%	18%	21%
2006	INTEL		96	4%	-9%	-4%	-1%	5%	8%	17%	32%
2007	INTEL		77	10%	-13%	4%	7%	10%	14%	20%	24%
2008	INTEL		67	3%	-7%	-4%	0%	3%	7%	11%	14%
2009	INTEL		74	8%	-5%	-3%	4%	9%	12%	19%	22%
2010	INTEL		75	8%	-3%	0%	4%	6%	11%	20%	23%
2006	INTEL		63	0%	-19%	-13%	-5%	-1%	1%	16%	57%
2007	INTEL		74	13%	-26%	1%	9%	12%	17%	28%	73%
2008	INTEL		64	4%	-20%	-13%	-1%	4%	11%	16%	36%
2009	INTEL		69	5%	-10%	-6%	0%	6%	9%	14%	25%
2010	INTEL		62	5%	-6%	-1%	4%	5%	7%	12%	22%
2002	INTEL		33	-11%	-39%	-39%	-24%	-13%	-7%	46%	69%
2003	INTEL		76	12%	-18%	-15%	-9%	13%	20%	88%	99%
2004	INTEL		89	0%	-33%	-25%	-9%	-1%	5%	30%	54%
2005	INTEL		102	18%	-12%	2%	10%	16%	25%	44%	72%
2006	INTEL		105	16%	-5%	0%	9%	16%	21%	33%	56%
2007	INTEL		98	18%	2%	6%	11%	17%	22%	36%	66%
2008	INTEL		85	6%	-10%	-4%	0%	5%	9%	23%	26%
2009	INTEL		88	13%	-1%	1%	9%	13%	17%	23%	55%
2010	INTEL		92	16%	-5%	2%	9%	15%	21%	31%	46%
2002	INTEL		30	-10%	-46%	-43%	-20%	-12%	-3%	58%	62%
2003	INTEL		78	17%	-33%	-18%	4%	17%	25%	44%	136%
2004	INTEL		84	-1%	-29%	-16%	-7%	-3%	2%	31%	51%
2005	INTEL		90	21%	-15%	5%	10%	15%	26%	46%	95%

Appendix B

Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2006	INTEL		93	11%	-17%	-8%	5%	9%	16%	30%	54%
2007	INTEL		96	19%	-12%	6%	11%	15%	23%	50%	72%
2008	INTEL		103	3%	-21%	-15%	0%	4%	8%	14%	33%
2009	INTEL		96	8%	-8%	0%	4%	9%	12%	19%	32%
2010	INTEL		122	9%	-2%	2%	5%	8%	12%	22%	47%
2002	INTEL		38	-17%	-55%	-51%	-31%	-18%	-6%	25%	29%
2003	INTEL		72	27%	-24%	-18%	12%	18%	31%	137%	179%
2004	INTEL		89	-4%	-38%	-24%	-10%	-5%	0%	12%	79%
2005	INTEL		102	17%	-10%	2%	7%	12%	21%	51%	94%
2006	INTEL		113	6%	-28%	-11%	-1%	4%	10%	34%	60%
2007	INTEL		115	17%	-17%	-9%	13%	18%	22%	35%	67%
2008	INTEL		107	6%	-17%	-12%	2%	7%	14%	19%	27%
2009	INTEL		103	3%	-42%	-7%	-2%	3%	8%	14%	50%
2010	INTEL		106	12%	-55%	5%	8%	11%	15%	25%	54%
2001	INTEL		73	-4%	-19%	-11%	-8%	-5%	2%	6%	9%
2002	INTEL		30	-6%	-13%	-13%	-10%	-8%	-2%	6%	8%
2007	INTEL		25	18%	6%	10%	11%	17%	24%	28%	31%
2001	INTEL		32	-6%	-23%	-15%	-11%	-9%	-5%	14%	16%
2001	INTEL		40	-2%	-12%	-12%	-9%	-7%	4%	16%	25%
2002	INTEL		34	-1%	-19%	-15%	-5%	-1%	3%	14%	14%
2003	INTEL		29	12%	-3%	0%	6%	10%	16%	27%	43%
2004	INTEL		27	-1%	-13%	-13%	-8%	0%	5%	8%	10%
2001	INTEL		58	-8%	-28%	-21%	-15%	-12%	-2%	6%	52%
2002	INTEL		49	-9%	-23%	-21%	-13%	-10%	-4%	3%	6%
2003	INTEL		43	9%	-7%	-6%	4%	9%	15%	24%	25%
2004	INTEL		38	-1%	-11%	-10%	-5%	-1%	3%	8%	10%
2005	INTEL		39	7%	-8%	-6%	3%	5%	10%	22%	23%
2006	INTEL		41	6%	-4%	-4%	1%	7%	11%	16%	17%
2007	INTEL		33	12%	-6%	-1%	6%	14%	17%	22%	27%
2001	INTEL		48	-12%	-52%	-29%	-16%	-13%	-10%	7%	11%
2002	INTEL		44	-9%	-29%	-24%	-12%	-7%	-4%	2%	3%
2003	INTEL		43	13%	-5%	-4%	8%	13%	17%	25%	27%
2004	INTEL		42	-4%	-15%	-13%	-8%	-5%	0%	9%	10%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2005	INTEL		41	7%	-5%	0%	4%	7%	10%	15%	18%
2006	INTEL		34	3%	-6%	-5%	-2%	2%	8%	17%	18%
2007	INTEL		31	13%	4%	5%	9%	12%	18%	24%	31%
2008	INTEL		36	4%	-2%	-1%	0%	2%	10%	14%	15%
2009	INTEL		26	5%	-3%	-3%	2%	6%	9%	12%	15%
2010	INTEL		27	7%	-1%	2%	4%	5%	8%	15%	15%
2001	INTEL		40	-1%	-58%	-35%	-17%	-9%	-3%	86%	100%
2001	INTEL		360	1%	-20%	-11%	-7%	0%	7%	18%	68%
2002	INTEL		273	-2%	-27%	-18%	-8%	-3%	3%	14%	54%
2003	INTEL		203	16%	-15%	0%	10%	15%	20%	42%	58%
2004	INTEL		125	3%	-17%	-10%	-3%	1%	7%	26%	28%
2005	INTEL		165	14%	-3%	3%	8%	12%	20%	28%	36%
2006	INTEL		128	13%	-5%	-1%	6%	13%	21%	31%	35%
2007	INTEL		103	15%	-4%	1%	8%	15%	22%	27%	40%
2008	INTEL		84	3%	-8%	-4%	-1%	2%	6%	15%	22%
2009	INTEL		82	15%	4%	6%	10%	15%	20%	24%	33%
2010	INTEL		92	19%	-1%	3%	9%	20%	27%	35%	64%
2001	INTEL		784	0%	-27%	-13%	-9%	-4%	8%	27%	137%
2002	INTEL		667	-1%	-28%	-13%	-7%	-2%	3%	12%	34%
2003	INTEL		583	13%	-7%	1%	8%	12%	19%	27%	63%
2004	INTEL		494	3%	-21%	-8%	-3%	0%	7%	18%	43%
2005	INTEL		510	13%	-4%	1%	8%	12%	18%	27%	34%
2006	INTEL		407	12%	-6%	1%	6%	10%	17%	28%	46%
2007	INTEL		375	12%	-9%	2%	7%	10%	18%	26%	35%
2008	INTEL		349	2%	-11%	-5%	-2%	1%	5%	13%	26%
2009	INTEL		386	14%	-3%	4%	9%	13%	18%	27%	41%
2010	INTEL		379	14%	-2%	2%	6%	13%	21%	30%	50%
2001	INTEL		845	-7%	-43%	-21%	-14%	-10%	0%	12%	68%
2002	INTEL		774	-5%	-34%	-20%	-11%	-4%	0%	9%	63%
2003	INTEL		753	11%	-23%	-4%	7%	10%	16%	24%	82%
2004	INTEL		742	-3%	-22%	-11%	-6%	-4%	-1%	7%	51%
2005	INTEL		741	10%	-23%	0%	5%	9%	14%	24%	43%
2006	INTEL		602	9%	-12%	-3%	5%	8%	14%	22%	33%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2007	INTEL		586	10%	-7%	1%	7%	9%	13%	22%	38%
2008	INTEL		566	3%	-13%	-5%	-1%	3%	6%	15%	34%
2009	INTEL		574	8%	-13%	-1%	4%	8%	12%	19%	36%
2010	INTEL		590	10%	-8%	0%	4%	8%	13%	29%	46%
2001	INTEL		881	-6%	-53%	-23%	-14%	-10%	0%	20%	99%
2002	INTEL		850	-8%	-45%	-33%	-14%	-7%	-2%	9%	86%
2003	INTEL		804	12%	-24%	-5%	7%	11%	17%	26%	99%
2004	INTEL		807	-3%	-34%	-13%	-6%	-4%	0%	8%	53%
2005	INTEL		872	10%	-19%	-1%	5%	9%	14%	25%	61%
2006	INTEL		800	7%	-14%	-4%	3%	7%	12%	18%	43%
2007	INTEL		817	12%	-14%	4%	8%	11%	16%	24%	54%
2008	INTEL		808	4%	-16%	-5%	-1%	3%	7%	14%	29%
2009	INTEL		806	8%	-11%	-1%	4%	8%	11%	19%	40%
2010	INTEL		874	9%	-4%	1%	4%	8%	13%	22%	40%
2001	INTEL		592	-8%	-55%	-27%	-16%	-12%	-3%	23%	79%
2002	INTEL		580	-10%	-52%	-36%	-18%	-10%	-4%	9%	66%
2003	INTEL		549	14%	-36%	-7%	8%	13%	20%	32%	148%
2004	INTEL		584	-4%	-43%	-16%	-10%	-5%	0%	9%	87%
2005	INTEL		635	13%	-14%	-1%	7%	10%	16%	42%	79%
2006	INTEL		582	4%	-16%	-9%	-1%	2%	8%	18%	66%
2007	INTEL		613	13%	-22%	3%	9%	12%	16%	28%	82%
2008	INTEL		612	5%	-22%	-6%	1%	5%	9%	15%	35%
2009	INTEL		590	6%	-10%	-3%	2%	5%	9%	19%	49%
2010	INTEL		643	8%	-8%	0%	4%	7%	11%	19%	48%
2001	INTEL		219	-8%	-53%	-35%	-16%	-10%	-2%	16%	88%
2002	INTEL		223	-12%	-61%	-42%	-21%	-12%	-5%	14%	56%
2003	INTEL		222	18%	-48%	-17%	11%	17%	25%	39%	161%
2004	INTEL		225	-5%	-36%	-16%	-8%	-5%	-1%	9%	65%
2005	INTEL		239	13%	-10%	-1%	6%	10%	16%	53%	77%
2006	INTEL		275	3%	-30%	-23%	-3%	2%	8%	26%	85%
2007	INTEL		280	15%	-22%	5%	11%	14%	18%	28%	60%
2008	INTEL		306	7%	-26%	-8%	2%	8%	13%	22%	45%
2009	INTEL		312	3%	-18%	-10%	-1%	2%	7%	16%	62%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2010	INTEL		356	13%	-1%	4%	8%	11%	15%	29%	56%
2004	INTEL		25	5%	-14%	-6%	-1%	3%	10%	12%	37%
2005	INTEL		29	11%	0%	1%	8%	11%	15%	20%	25%
2006	INTEL		28	8%	-6%	-3%	1%	7%	13%	23%	26%
2007	INTEL		28	14%	4%	5%	8%	11%	22%	26%	26%
2008	INTEL		27	1%	-9%	-8%	-2%	1%	3%	6%	18%
2009	INTEL		28	12%	2%	2%	6%	11%	18%	25%	29%
2005	INTEL		29	10%	-1%	3%	7%	8%	14%	21%	24%
2006	INTEL		25	2%	-8%	-5%	0%	1%	7%	10%	15%
2007	INTEL		29	12%	-2%	1%	7%	12%	16%	25%	27%
2008	INTEL		28	4%	-2%	-1%	1%	3%	6%	10%	16%
2009	INTEL		28	6%	-3%	-2%	3%	6%	9%	14%	21%
2010	INTEL		29	7%	0%	0%	4%	5%	11%	18%	18%
2006	INTEL		32	6%	-21%	-8%	-3%	3%	9%	39%	53%
2007	INTEL		31	13%	-9%	8%	9%	11%	16%	23%	43%
2008	INTEL		35	3%	-13%	-6%	-2%	1%	6%	17%	37%
2009	INTEL		34	7%	-9%	-6%	1%	9%	12%	23%	23%
2010	INTEL		43	9%	-2%	1%	4%	6%	11%	21%	22%
2006	INTEL		34	-2%	-25%	-23%	-8%	-2%	1%	23%	36%
2007	INTEL		44	17%	2%	6%	10%	14%	18%	53%	62%
2008	INTEL		54	8%	-20%	-10%	4%	8%	15%	22%	36%
2009	INTEL		58	2%	-10%	-10%	-4%	0%	7%	20%	25%
2010	INTEL		68	15%	4%	5%	8%	11%	17%	43%	58%
2001	INTEL		26	-3%	-16%	-15%	-11%	-5%	4%	15%	29%
2005	INTEL		26	8%	-5%	-1%	3%	7%	10%	25%	27%
2002	INTEL		50	-1%	-21%	-16%	-8%	1%	5%	12%	12%
2004	INTEL		26	2%	-11%	-9%	-2%	1%	6%	15%	19%
2005	INTEL		31	5%	-8%	-6%	-1%	4%	12%	22%	23%
2007	INTEL		31	16%	1%	4%	8%	13%	23%	34%	36%
2002	INTEL		93	-3%	-26%	-14%	-9%	-3%	0%	13%	16%
2003	INTEL		87	11%	-4%	-1%	7%	10%	15%	22%	29%
2004	INTEL		80	0%	-12%	-9%	-4%	-2%	4%	7%	29%
2005	INTEL		88	8%	-5%	-1%	3%	6%	13%	20%	29%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2006	INTEL		61	9%	-10%	-4%	2%	6%	15%	30%	35%
2007	INTEL		98	17%	0%	3%	10%	16%	24%	35%	37%
2008	INTEL		84	1%	-9%	-4%	-2%	1%	3%	8%	12%
2009	INTEL		81	10%	-3%	3%	6%	9%	14%	22%	26%
2010	INTEL		68	10%	-2%	3%	5%	8%	18%	22%	27%
2002	INTEL		95	-8%	-37%	-24%	-13%	-7%	-2%	7%	13%
2003	INTEL		108	10%	-16%	-5%	6%	9%	14%	22%	30%
2004	INTEL		109	-3%	-22%	-13%	-7%	-5%	1%	8%	13%
2005	INTEL		136	8%	-6%	-1%	3%	7%	11%	19%	31%
2006	INTEL		110	9%	-9%	-6%	1%	5%	15%	31%	34%
2007	INTEL		178	15%	-5%	4%	10%	14%	19%	27%	35%
2008	INTEL		162	4%	-15%	-2%	1%	4%	7%	14%	32%
2009	INTEL		172	6%	-6%	-2%	2%	5%	9%	17%	32%
2010	INTEL		162	6%	-5%	0%	4%	4%	7%	18%	32%
2002	INTEL		74	-8%	-40%	-25%	-15%	-7%	1%	8%	14%
2003	INTEL		83	12%	-8%	-3%	7%	11%	18%	28%	45%
2004	INTEL		86	-4%	-20%	-11%	-7%	-5%	-1%	5%	34%
2005	INTEL		94	7%	-6%	-2%	3%	6%	11%	16%	32%
2006	INTEL		92	8%	-11%	-7%	-1%	6%	16%	23%	41%
2007	INTEL		196	14%	-5%	4%	10%	14%	18%	25%	35%
2008	INTEL		198	5%	-8%	-3%	1%	5%	9%	13%	24%
2009	INTEL		219	5%	-8%	-3%	2%	5%	9%	18%	26%
2010	INTEL		236	6%	-6%	-1%	4%	6%	8%	15%	21%
2007	INTEL		51	13%	0%	1%	9%	14%	16%	21%	28%
2008	INTEL		63	7%	-6%	-4%	1%	7%	10%	16%	21%
2009	INTEL		60	5%	-6%	-5%	0%	3%	13%	20%	22%
2010	INTEL		72	5%	-8%	-2%	4%	5%	7%	13%	16%
2001	INTEL		59	0%	-17%	-12%	-9%	-2%	7%	16%	18%
2002	INTEL		40	1%	-14%	-13%	-6%	1%	6%	22%	25%
2001	INTEL		72	0%	-15%	-14%	-8%	-4%	5%	30%	54%
2002	INTEL		86	-2%	-20%	-16%	-8%	-4%	3%	18%	21%
2003	INTEL		41	15%	3%	4%	8%	14%	20%	31%	35%
2004	INTEL		40	2%	-13%	-11%	-5%	1%	4%	33%	33%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2005	INTEL		34	15%	1%	3%	8%	14%	21%	29%	35%
2006	INTEL		28	10%	-5%	1%	2%	8%	17%	26%	26%
2007	INTEL		33	12%	3%	3%	7%	9%	17%	29%	29%
2008	INTEL		45	3%	-7%	-4%	-1%	3%	6%	13%	24%
2009	INTEL		51	12%	1%	3%	6%	12%	18%	23%	27%
2010	INTEL		64	14%	3%	3%	5%	10%	22%	32%	37%
2001	INTEL		98	-9%	-32%	-22%	-17%	-11%	-3%	12%	32%
2002	INTEL		109	-7%	-33%	-25%	-13%	-6%	0%	8%	16%
2003	INTEL		67	10%	-10%	-4%	5%	9%	13%	24%	32%
2004	INTEL		59	-3%	-36%	-12%	-6%	-4%	0%	9%	28%
2005	INTEL		49	10%	-4%	0%	6%	7%	13%	21%	41%
2006	INTEL		51	7%	-11%	-2%	2%	8%	13%	19%	22%
2007	INTEL		66	11%	-13%	0%	6%	9%	15%	23%	33%
2008	INTEL		60	3%	-9%	-4%	-1%	2%	7%	12%	24%
2009	INTEL		61	8%	-7%	-2%	3%	7%	11%	24%	28%
2010	INTEL		67	7%	-4%	-1%	3%	5%	11%	20%	32%
2001	INTEL		129	-13%	-40%	-27%	-22%	-14%	-7%	6%	36%
2002	INTEL		124	-10%	-42%	-37%	-16%	-11%	-2%	6%	57%
2003	INTEL		75	14%	-18%	-4%	7%	11%	17%	27%	96%
2004	INTEL		95	-4%	-31%	-15%	-9%	-5%	-1%	8%	44%
2005	INTEL		79	11%	-5%	-1%	6%	9%	16%	24%	43%
2006	INTEL		72	5%	-11%	-3%	0%	4%	10%	23%	25%
2007	INTEL		58	12%	-32%	0%	9%	11%	15%	26%	42%
2008	INTEL		68	7%	-10%	-6%	2%	6%	9%	26%	28%
2009	INTEL		74	10%	-4%	-1%	4%	9%	16%	22%	37%
2010	INTEL		75	10%	-3%	1%	4%	8%	13%	27%	39%
2001	INTEL		92	-10%	-50%	-27%	-18%	-13%	-4%	14%	47%
2002	INTEL		87	-11%	-47%	-41%	-17%	-11%	-4%	6%	38%
2003	INTEL		61	14%	-18%	-2%	8%	13%	16%	36%	69%
2004	INTEL		69	-5%	-38%	-16%	-10%	-6%	0%	8%	20%
2005	INTEL		77	11%	-5%	-2%	6%	9%	15%	35%	49%
2006	INTEL		64	2%	-9%	-6%	-4%	-1%	4%	17%	33%
2007	INTEL		70	17%	-17%	5%	11%	16%	20%	45%	79%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2008	INTEL		73	5%	-16%	-4%	1%	5%	9%	15%	20%
2009	INTEL		70	6%	-9%	-5%	0%	6%	11%	17%	19%
2010	INTEL		79	8%	-6%	0%	4%	6%	12%	19%	35%
2001	INTEL		42	-8%	-28%	-25%	-17%	-14%	-2%	43%	44%
2002	INTEL		45	-15%	-46%	-43%	-22%	-14%	-6%	8%	35%
2003	INTEL		51	15%	-25%	-17%	11%	16%	19%	30%	147%
2004	INTEL		50	-3%	-36%	-15%	-8%	-5%	-1%	13%	60%
2005	INTEL		55	11%	-7%	-6%	3%	8%	13%	62%	71%
2006	INTEL		51	4%	-17%	-10%	-5%	-1%	8%	28%	82%
2007	INTEL		38	16%	3%	6%	10%	14%	21%	32%	50%
2008	INTEL		47	6%	-25%	-13%	2%	7%	10%	20%	25%
2009	INTEL		53	5%	-14%	-7%	-1%	4%	9%	28%	45%
2010	INTEL		56	13%	-1%	3%	9%	12%	15%	28%	34%
2001	INTEL		54	2%	-19%	-15%	-7%	1%	11%	20%	26%
2002	INTEL		41	-1%	-25%	-19%	-6%	-3%	5%	23%	53%
2003	INTEL		25	12%	-4%	-3%	2%	12%	20%	25%	27%
2004	INTEL		29	0%	-21%	-15%	-8%	-1%	6%	20%	22%
2005	INTEL		38	12%	-7%	-3%	5%	9%	20%	27%	29%
2006	INTEL		36	10%	-5%	-4%	6%	10%	14%	17%	27%
2007	INTEL		25	17%	-3%	7%	15%	19%	21%	23%	25%
2001	INTEL		147	-2%	-25%	-15%	-10%	-7%	2%	30%	66%
2002	INTEL		144	-3%	-23%	-17%	-7%	-2%	0%	14%	25%
2003	INTEL		100	11%	-9%	-3%	6%	9%	16%	24%	32%
2004	INTEL		83	0%	-12%	-10%	-5%	0%	5%	13%	21%
2005	INTEL		74	9%	-11%	-3%	2%	6%	16%	28%	32%
2006	INTEL		91	7%	-12%	-6%	0%	4%	12%	23%	31%
2007	INTEL		69	12%	-2%	3%	7%	11%	17%	23%	26%
2008	INTEL		72	1%	-9%	-8%	-3%	1%	4%	10%	21%
2009	INTEL		80	12%	-8%	1%	7%	10%	18%	27%	30%
2010	INTEL		58	9%	-2%	1%	4%	5%	12%	26%	32%
2001	INTEL		153	-9%	-31%	-18%	-15%	-12%	-5%	5%	39%
2002	INTEL		149	-7%	-33%	-22%	-13%	-6%	-2%	5%	16%
2003	INTEL		131	10%	-7%	-4%	6%	9%	15%	24%	31%

Appendix B

Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2004	INTEL		126	-4%	-15%	-13%	-7%	-5%	-1%	7%	39%
2005	INTEL		136	7%	-7%	-5%	3%	7%	12%	19%	32%
2006	INTEL		207	5%	-13%	-7%	0%	3%	10%	23%	32%
2007	INTEL		168	9%	-6%	-1%	6%	8%	13%	21%	29%
2008	INTEL		153	4%	-15%	-7%	-1%	4%	8%	13%	17%
2009	INTEL		157	6%	-9%	-4%	1%	6%	11%	19%	26%
2010	INTEL		149	6%	-5%	-3%	2%	4%	8%	16%	20%
2001	INTEL		84	-12%	-50%	-25%	-15%	-12%	-10%	4%	7%
2002	INTEL		90	-8%	-35%	-27%	-14%	-8%	-3%	10%	25%
2003	INTEL		95	12%	-30%	-5%	7%	11%	18%	27%	36%
2004	INTEL		95	-4%	-24%	-11%	-8%	-4%	-2%	6%	40%
2005	INTEL		100	5%	-8%	-5%	3%	4%	7%	15%	26%
2006	INTEL		167	3%	-13%	-5%	-2%	2%	6%	18%	38%
2007	INTEL		170	10%	-4%	2%	7%	10%	13%	19%	24%
2008	INTEL		171	5%	-8%	-3%	1%	5%	10%	14%	21%
2009	INTEL		169	4%	-18%	-5%	1%	4%	8%	13%	19%
2010	INTEL		184	6%	-5%	-1%	4%	5%	8%	14%	18%
2001	INTEL		27	-14%	-52%	-42%	-18%	-12%	-9%	-1%	18%
2004	INTEL		26	-5%	-30%	-12%	-6%	-5%	-2%	1%	11%
2005	INTEL		29	8%	-2%	2%	5%	6%	12%	15%	16%
2006	INTEL		57	0%	-18%	-8%	-4%	-2%	2%	10%	61%
2007	INTEL		67	11%	-15%	-1%	8%	11%	15%	19%	48%
2008	INTEL		65	7%	-17%	-6%	4%	7%	12%	18%	39%
2009	INTEL		65	4%	-12%	-6%	0%	3%	7%	15%	29%
2010	INTEL		66	6%	-5%	0%	4%	5%	9%	15%	18%
2005	INTEL		26	17%	4%	6%	7%	14%	27%	33%	34%
2007	INTEL		34	13%	0%	2%	7%	10%	20%	29%	39%
2008	INTEL		36	2%	-12%	-11%	-2%	0%	4%	19%	23%
2009	INTEL		42	13%	-1%	4%	8%	11%	18%	23%	29%
2010	INTEL		39	14%	-2%	-2%	5%	12%	19%	41%	49%
2005	INTEL		34	12%	-3%	0%	5%	11%	18%	26%	31%
2006	INTEL		29	7%	-4%	-4%	2%	8%	13%	17%	23%
2007	INTEL		37	8%	-4%	-1%	5%	7%	12%	21%	23%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2008	INTEL		42	3%	-9%	-4%	0%	3%	6%	9%	12%
2009	INTEL		41	7%	-2%	0%	3%	8%	12%	16%	17%
2010	INTEL		49	9%	-4%	1%	4%	7%	11%	30%	36%
2005	INTEL		25	15%	1%	1%	7%	10%	21%	42%	44%
2007	INTEL		32	15%	5%	5%	9%	13%	19%	30%	65%
2008	INTEL		40	6%	-4%	-3%	1%	4%	7%	30%	34%
2009	INTEL		39	9%	-4%	-2%	4%	8%	11%	22%	22%
2010	INTEL		44	7%	-13%	-2%	4%	6%	9%	21%	24%
2008	INTEL		26	9%	-13%	-13%	2%	7%	15%	31%	32%
2009	INTEL		28	9%	-13%	-9%	3%	9%	12%	35%	37%
2010	INTEL		29	9%	-4%	-4%	5%	7%	12%	28%	30%
2001	INTEL		57	3%	-25%	-15%	-5%	5%	9%	20%	21%
2002	INTEL		39	1%	-20%	-17%	-4%	1%	5%	16%	20%
2001	INTEL		149	3%	-15%	-12%	-8%	-2%	8%	29%	59%
2002	INTEL		133	-1%	-22%	-15%	-6%	-2%	5%	20%	27%
2003	INTEL		111	12%	-6%	0%	7%	9%	17%	25%	28%
2004	INTEL		99	1%	-24%	-9%	-3%	-1%	6%	14%	27%
2005	INTEL		90	10%	-3%	-1%	3%	8%	16%	24%	35%
2006	INTEL		71	9%	-9%	-6%	2%	10%	17%	23%	25%
2007	INTEL		45	15%	-3%	1%	9%	15%	22%	30%	32%
2008	INTEL		37	2%	-10%	-7%	-1%	1%	5%	13%	21%
2009	INTEL		38	15%	0%	1%	8%	14%	21%	27%	35%
2010	INTEL		28	9%	1%	2%	4%	6%	10%	27%	27%
2001	INTEL		207	-6%	-39%	-19%	-12%	-9%	-1%	11%	59%
2002	INTEL		174	-5%	-30%	-22%	-11%	-4%	1%	9%	20%
2003	INTEL		178	11%	-10%	-5%	6%	10%	16%	26%	77%
2004	INTEL		182	-3%	-23%	-12%	-6%	-4%	0%	7%	31%
2005	INTEL		204	10%	-14%	0%	5%	9%	14%	24%	32%
2006	INTEL		165	4%	-10%	-5%	0%	2%	8%	15%	23%
2007	INTEL		141	11%	-19%	3%	6%	10%	17%	25%	31%
2008	INTEL		118	3%	-22%	-7%	-1%	3%	8%	14%	30%
2009	INTEL		126	7%	-7%	-2%	3%	8%	11%	18%	27%
2010	INTEL		108	9%	-4%	-2%	4%	6%	13%	20%	41%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2001	INTEL		181	-5%	-41%	-21%	-14%	-10%	0%	28%	61%
2002	INTEL		206	-8%	-41%	-31%	-15%	-7%	-3%	10%	42%
2003	INTEL		204	14%	-26%	-5%	8%	13%	19%	27%	113%
2004	INTEL		206	-3%	-29%	-13%	-6%	-3%	1%	7%	47%
2005	INTEL		227	10%	-7%	1%	6%	9%	13%	22%	59%
2006	INTEL		219	3%	-12%	-7%	-2%	2%	7%	14%	63%
2007	INTEL		202	14%	-3%	3%	10%	13%	17%	23%	57%
2008	INTEL		192	4%	-13%	-5%	0%	4%	7%	12%	26%
2009	INTEL		175	7%	-6%	-2%	3%	6%	10%	16%	20%
2010	INTEL		161	7%	-3%	1%	4%	5%	9%	17%	29%
2001	INTEL		102	-7%	-41%	-27%	-15%	-12%	-3%	33%	57%
2002	INTEL		121	-12%	-48%	-38%	-22%	-10%	-4%	9%	47%
2003	INTEL		128	12%	-28%	-4%	8%	12%	18%	32%	41%
2004	INTEL		140	-5%	-40%	-20%	-8%	-5%	1%	10%	15%
2005	INTEL		126	10%	-25%	-6%	6%	9%	13%	24%	75%
2006	INTEL		125	0%	-13%	-9%	-3%	-2%	3%	11%	32%
2007	INTEL		125	15%	-17%	7%	10%	13%	17%	27%	76%
2008	INTEL		131	6%	-18%	-8%	1%	6%	11%	19%	30%
2009	INTEL		141	5%	-32%	-6%	1%	5%	9%	19%	24%
2010	INTEL		136	7%	-4%	1%	4%	5%	9%	18%	25%
2002	INTEL		31	-12%	-39%	-39%	-21%	-12%	-7%	10%	40%
2003	INTEL		37	11%	-17%	-16%	4%	15%	19%	28%	35%
2004	INTEL		42	-7%	-32%	-27%	-9%	-6%	-2%	0%	16%
2005	INTEL		46	16%	0%	1%	8%	10%	19%	57%	67%
2006	INTEL		47	-2%	-39%	-22%	-7%	-3%	4%	13%	41%
2007	INTEL		43	18%	2%	4%	12%	14%	20%	62%	65%
2008	INTEL		45	5%	-30%	-17%	2%	7%	11%	19%	30%
2009	INTEL		40	2%	-16%	-9%	-1%	2%	6%	16%	22%
2010	INTEL		42	9%	-44%	1%	8%	9%	13%	19%	24%
2001	INTEL		29	-2%	-15%	-14%	-12%	-10%	-3%	44%	51%
2002	INTEL		36	-14%	-42%	-38%	-19%	-15%	-6%	-1%	5%
2003	INTEL		50	14%	-6%	-5%	8%	13%	18%	30%	67%
2004	INTEL		54	-5%	-41%	-24%	-10%	-5%	1%	10%	12%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2005	INTEL		53	9%	-1%	0%	6%	9%	12%	20%	22%
2006	INTEL		38	4%	-17%	-13%	-2%	3%	11%	19%	25%
2007	INTEL		32	16%	-9%	-1%	11%	13%	18%	37%	76%
2008	INTEL		32	6%	-5%	-3%	1%	5%	9%	17%	18%
2009	INTEL		27	4%	-6%	-6%	0%	4%	9%	13%	19%
2010	INTEL		31	6%	-2%	0%	4%	5%	7%	20%	22%
2001	INTEL		32	1%	-25%	-18%	-13%	-7%	3%	51%	61%
2002	INTEL		35	-9%	-44%	-42%	-22%	-7%	-2%	40%	43%
2003	INTEL		33	6%	-43%	-32%	-6%	12%	17%	31%	31%
2004	INTEL		34	-5%	-17%	-15%	-12%	-6%	-4%	14%	14%
2005	INTEL		35	18%	2%	9%	11%	15%	19%	54%	68%
2006	INTEL		28	2%	-27%	-27%	-7%	-2%	4%	32%	89%
2008	INTEL		28	7%	-12%	-9%	2%	8%	12%	22%	26%
2009	INTEL		27	0%	-13%	-7%	-2%	-1%	3%	13%	14%
2010	INTEL		25	10%	3%	4%	7%	9%	12%	15%	35%
2001	INTEL		26	-8%	-22%	-21%	-13%	-7%	-2%	4%	5%
2010	INTEL		30	6%	-5%	0%	4%	5%	9%	14%	20%
2001	INTEL		30	2%	-12%	-12%	-8%	-2%	12%	18%	18%
2001	INTEL		52	0%	-15%	-13%	-9%	-6%	11%	33%	50%
2002	INTEL		36	-2%	-19%	-10%	-6%	-2%	1%	12%	14%
2003	INTEL		26	13%	-1%	-1%	7%	11%	20%	27%	29%
2001	INTEL		47	-13%	-24%	-23%	-19%	-15%	-11%	19%	23%
2002	INTEL		44	-9%	-29%	-29%	-13%	-10%	-3%	6%	7%
2003	INTEL		44	8%	-13%	-12%	2%	9%	12%	27%	28%
2004	INTEL		43	-3%	-28%	-24%	-11%	-5%	-1%	30%	44%
2005	INTEL		44	7%	-11%	-9%	3%	5%	9%	35%	36%
2006	INTEL		39	4%	-10%	-7%	0%	1%	10%	20%	21%
2007	INTEL		31	11%	-1%	4%	7%	10%	15%	23%	29%
2008	INTEL		26	4%	-4%	-4%	1%	4%	7%	13%	19%
2001	INTEL		46	-12%	-31%	-24%	-19%	-13%	-10%	11%	18%
2002	INTEL		41	-8%	-26%	-26%	-15%	-6%	-2%	7%	9%
2003	INTEL		31	8%	-9%	-6%	0%	9%	13%	22%	31%
2004	INTEL		26	-3%	-15%	-12%	-7%	-4%	0%	8%	14%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2005	INTEL		38	7%	-1%	-1%	4%	5%	10%	15%	19%
2006	INTEL		28	2%	-14%	-9%	-3%	0%	7%	14%	23%
2007	INTEL		30	11%	3%	5%	7%	10%	14%	22%	26%
2008	INTEL		26	11%	-1%	0%	7%	10%	16%	22%	22%
2001	INTEL		48	4%	-18%	-11%	-8%	2%	11%	43%	55%
2002	INTEL		26	4%	-23%	-13%	-2%	2%	10%	33%	34%
2003	INTEL		37	20%	-3%	-1%	9%	17%	28%	53%	64%
2004	INTEL		38	-2%	-15%	-15%	-7%	-2%	2%	13%	26%
2001	INTEL		101	1%	-20%	-14%	-10%	-4%	10%	31%	81%
2002	INTEL		57	-1%	-23%	-19%	-8%	-2%	5%	14%	21%
2003	INTEL		66	13%	-13%	-2%	8%	11%	18%	31%	68%
2004	INTEL		77	-1%	-17%	-15%	-7%	-3%	2%	16%	38%
2005	INTEL		54	8%	-4%	-3%	3%	7%	13%	24%	26%
2006	INTEL		34	5%	-6%	-5%	0%	2%	9%	18%	38%
2007	INTEL		28	12%	1%	2%	7%	11%	16%	25%	27%
2001	INTEL		118	-8%	-22%	-20%	-15%	-11%	-3%	8%	32%
2002	INTEL		104	-6%	-35%	-24%	-12%	-5%	1%	14%	20%
2003	INTEL		106	13%	-13%	1%	7%	10%	18%	30%	88%
2004	INTEL		99	-3%	-26%	-13%	-8%	-4%	-1%	7%	40%
2005	INTEL		53	8%	-7%	-1%	3%	8%	12%	20%	29%
2006	INTEL		36	3%	-13%	-10%	-1%	1%	5%	16%	20%
2007	INTEL		29	9%	2%	2%	4%	8%	12%	19%	22%
2010	INTEL		26	6%	-4%	-3%	3%	4%	8%	19%	24%
2001	INTEL		95	-8%	-39%	-24%	-15%	-11%	-4%	12%	86%
2002	INTEL		85	-8%	-36%	-23%	-15%	-7%	-3%	10%	42%
2003	INTEL		87	10%	-18%	-6%	7%	11%	16%	24%	27%
2004	INTEL		112	-3%	-36%	-15%	-7%	-4%	0%	10%	45%
2005	INTEL		45	10%	-10%	-6%	4%	10%	12%	33%	42%
2006	INTEL		32	6%	-8%	-7%	1%	5%	8%	19%	59%
2001	INTEL		37	-10%	-41%	-39%	-15%	-12%	-2%	10%	18%
2002	INTEL		37	-9%	-30%	-30%	-18%	-9%	-3%	4%	54%
2003	INTEL		45	16%	-25%	-12%	7%	13%	20%	92%	97%
2004	INTEL		45	-5%	-30%	-20%	-10%	-4%	-1%	11%	24%

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Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2005	INTEL		25	8%	-6%	-1%	3%	6%	13%	23%	27%
2007	INTEL		26	11%	-1%	0%	6%	10%	18%	21%	24%
2008	INTEL		29	5%	-4%	-1%	0%	4%	6%	23%	26%
2009	INTEL		27	12%	1%	5%	6%	10%	18%	25%	26%
2010	INTEL		28	13%	-3%	2%	4%	8%	23%	32%	34%
2005	INTEL		32	8%	0%	1%	3%	5%	11%	16%	34%
2006	INTEL		37	6%	-12%	-5%	1%	4%	9%	19%	20%
2007	INTEL		39	9%	-2%	-1%	6%	8%	13%	17%	28%
2008	INTEL		34	3%	-11%	-8%	-1%	4%	7%	12%	13%
2009	INTEL		32	6%	-6%	-5%	2%	7%	10%	14%	15%
2010	INTEL		36	9%	-5%	1%	4%	7%	12%	25%	35%
2005	INTEL		43	8%	-5%	-5%	2%	6%	12%	33%	33%
2006	INTEL		52	5%	-7%	-4%	1%	6%	9%	15%	21%
2007	INTEL		79	12%	2%	4%	9%	10%	14%	23%	42%
2008	INTEL		93	6%	-6%	-4%	1%	5%	9%	22%	34%
2009	INTEL		95	10%	-3%	-1%	5%	8%	13%	22%	31%
2010	INTEL		103	8%	-3%	0%	4%	6%	11%	19%	38%
2006	INTEL		28	4%	-15%	-12%	-2%	2%	9%	21%	46%
2007	INTEL		34	14%	-15%	2%	10%	13%	15%	27%	63%
2008	INTEL		42	6%	-6%	-3%	1%	4%	10%	17%	31%
2009	INTEL		43	6%	-7%	-4%	3%	4%	10%	17%	20%
2010	INTEL		51	7%	-3%	1%	4%	6%	11%	15%	20%
2010	INTEL		28	10%	-2%	0%	8%	9%	12%	19%	25%
2001	INTEL		43	0%	-16%	-15%	-11%	-3%	8%	29%	39%
2001	INTEL		26	-7%	-18%	-18%	-12%	-7%	-3%	4%	9%
2001	INTEL		26	-2%	-16%	-15%	-10%	-6%	1%	27%	36%
2005	INTEL		39	12%	0%	1%	4%	10%	19%	28%	34%
2006	INTEL		41	7%	-12%	-8%	0%	7%	14%	21%	24%
2007	INTEL		30	12%	1%	1%	7%	10%	17%	26%	30%
2008	INTEL		26	-1%	-10%	-7%	-4%	-1%	0%	8%	10%
2004	INTEL		30	-4%	-16%	-15%	-7%	-4%	-1%	5%	11%
2005	INTEL		51	8%	0%	0%	4%	8%	12%	17%	20%
2006	INTEL		47	5%	-5%	-1%	1%	6%	9%	14%	19%

Appendix B

Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2007	INTEL		44	9%	-6%	-4%	6%	8%	14%	23%	25%
2008	INTEL		29	5%	-6%	-4%	1%	4%	9%	15%	29%
2009	INTEL		32	5%	-2%	-2%	1%	4%	8%	14%	23%
2010	INTEL		29	5%	-2%	0%	4%	4%	8%	15%	17%
2004	INTEL		42	-2%	-32%	-28%	-10%	-2%	0%	47%	47%
2005	INTEL		55	13%	2%	3%	7%	11%	17%	31%	57%
2006	INTEL		69	6%	-10%	-5%	1%	5%	10%	15%	34%
2007	INTEL		65	12%	3%	5%	9%	12%	14%	21%	25%
2008	INTEL		59	5%	-3%	-3%	1%	5%	8%	14%	17%
2009	INTEL		62	7%	-7%	-2%	3%	5%	11%	18%	28%
2010	INTEL		49	10%	-4%	-2%	4%	7%	12%	32%	39%
2005	INTEL		32	20%	5%	5%	12%	16%	22%	53%	92%
2006	INTEL		37	1%	-13%	-12%	-3%	2%	6%	11%	13%
2007	INTEL		35	14%	0%	2%	9%	12%	19%	27%	47%
2008	INTEL		39	5%	-21%	-4%	2%	6%	9%	14%	18%
2009	INTEL		38	5%	-7%	-3%	1%	3%	7%	19%	24%
2010	INTEL		39	6%	-6%	-4%	3%	7%	9%	13%	16%
2004	INTUIT		31	6%	-14%	-11%	-6%	2%	10%	39%	63%
2005	INTUIT		47	18%	-7%	-1%	11%	15%	23%	41%	56%
2006	INTUIT		49	3%	-19%	-13%	-4%	3%	8%	17%	32%
2007	INTUIT		58	9%	-30%	-21%	-1%	9%	12%	39%	83%
2008	INTUIT		71	-2%	-23%	-17%	-9%	-4%	4%	20%	56%
2009	INTUIT		71	19%	-25%	-8%	7%	17%	34%	43%	61%
2010	INTUIT		72	0%	-28%	-24%	-8%	0%	6%	26%	39%
2008	INTUIT		28	4%	-14%	-12%	-4%	1%	14%	21%	22%
2007	INTUIT		30	9%	-3%	-3%	4%	7%	13%	25%	33%
2008	INTUIT		34	2%	-7%	-7%	-3%	0%	3%	19%	25%
2009	INTUIT		31	13%	-6%	-5%	6%	11%	20%	30%	38%
2010	INTUIT		32	3%	-14%	-9%	-1%	1%	8%	22%	26%
2002	INTUIT		26	31%	-40%	-24%	3%	30%	49%	80%	160%
2003	INTUIT		26	7%	-51%	-51%	-17%	4%	21%	130%	130%
2004	INTUIT		27	3%	-29%	-26%	-13%	-7%	4%	71%	85%
2005	INTUIT		30	20%	-32%	-30%	8%	19%	31%	90%	139%

Appendix B

Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2006	INTUIT		34	13%	-14%	-10%	4%	10%	23%	39%	44%
2005	INTUIT		28	22%	-3%	-3%	10%	21%	30%	75%	75%
2006	INTUIT		26	13%	-23%	-23%	4%	8%	21%	62%	62%
2007	INTUIT		31	17%	-16%	-13%	3%	15%	27%	38%	70%
2008	INTUIT		31	-1%	-17%	-15%	-11%	-7%	4%	36%	55%
2009	INTUIT		34	23%	-20%	-7%	1%	24%	39%	52%	68%
2010	INTUIT		32	18%	-19%	-19%	-4%	11%	39%	57%	121%
2007	INTUIT		42	9%	-13%	-11%	-1%	7%	13%	46%	77%
2008	INTUIT		38	-4%	-21%	-21%	-12%	-6%	4%	13%	19%
2009	INTUIT		47	11%	-14%	-9%	2%	8%	18%	44%	56%
2010	INTUIT		46	9%	-15%	-12%	-1%	3%	17%	33%	51%
2006	INTUIT		53	11%	-14%	-13%	4%	12%	23%	30%	30%
2007	INTUIT		27	10%	-27%	-9%	1%	9%	18%	43%	44%
2006	INTUIT		26	11%	-17%	-11%	3%	8%	23%	34%	50%
2001	INTUIT		47	-32%	-67%	-57%	-44%	-36%	-27%	-13%	157%
2002	INTUIT		27	21%	-11%	-5%	16%	24%	31%	35%	54%
2003	INTUIT		38	8%	-23%	-15%	-8%	5%	14%	44%	56%
2004	INTUIT		40	-3%	-22%	-18%	-11%	-3%	4%	12%	24%
2005	INTUIT		25	20%	-7%	-7%	14%	19%	27%	45%	45%
2001	INTUIT		39	-29%	-57%	-49%	-41%	-35%	-25%	17%	77%
2002	INTUIT		45	12%	-32%	-24%	1%	16%	28%	37%	40%
2003	INTUIT		44	13%	-26%	-16%	1%	12%	24%	38%	45%
2004	INTUIT		31	4%	-16%	-16%	-3%	2%	7%	30%	30%
2005	INTUIT		30	21%	0%	0%	11%	20%	27%	40%	40%
2006	INTUIT		37	11%	-11%	-10%	5%	12%	19%	30%	32%
2007	INTUIT		57	17%	-7%	-2%	4%	16%	25%	44%	65%
2008	INTUIT		56	1%	-19%	-15%	-6%	0%	6%	18%	28%
2009	INTUIT		52	17%	-13%	-7%	7%	16%	27%	49%	63%
2010	INTUIT		54	6%	-16%	-11%	-4%	3%	11%	32%	70%
2003	INTUIT		187	8%	-24%	-9%	1%	6%	13%	31%	60%
2004	INTUIT		184	10%	-18%	-7%	3%	8%	17%	29%	45%
2005	INTUIT		173	16%	-14%	-3%	8%	13%	23%	37%	67%
2006	INTUIT		152	7%	-12%	-8%	-3%	6%	15%	26%	48%

Appendix B

Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2007	INTUIT		198	17%	-13%	-3%	6%	13%	27%	47%	111%
2008	INTUIT		170	6%	-24%	-10%	-1%	5%	14%	26%	44%
2001	INTUIT		100	-22%	-59%	-51%	-39%	-26%	-6%	17%	56%
2002	INTUIT		140	8%	-44%	-24%	-3%	6%	21%	35%	47%
2003	INTUIT		38	5%	-14%	-14%	-3%	5%	16%	23%	23%
2009	INTUIT		172	17%	-25%	-6%	5%	13%	25%	54%	65%
2010	INTUIT		162	5%	-26%	-13%	-6%	2%	15%	35%	50%
2001	INTUIT		122	-31%	-62%	-55%	-45%	-36%	-24%	7%	127%
2002	INTUIT		170	8%	-49%	-26%	0%	6%	21%	40%	51%
2003	INTUIT		49	7%	-26%	-13%	-5%	6%	13%	42%	46%
2001	INTUIT		91	-35%	-65%	-57%	-46%	-37%	-27%	6%	15%
2002	INTUIT		116	14%	-42%	-25%	-1%	11%	30%	55%	130%
2003	INTUIT		32	2%	-18%	-16%	-10%	-1%	10%	30%	40%
2003	INTUIT		61	7%	-19%	-8%	0%	5%	16%	32%	38%
2004	INTUIT		66	4%	-10%	-8%	0%	3%	7%	18%	27%
2005	INTUIT		68	14%	-4%	-2%	9%	14%	17%	37%	42%
2006	INTUIT		74	10%	-14%	-7%	1%	8%	20%	35%	39%
2007	INTUIT		54	11%	-16%	-8%	0%	9%	18%	36%	43%
2008	INTUIT		54	9%	-11%	-10%	2%	7%	19%	32%	32%
2001	INTUIT		36	-19%	-56%	-52%	-38%	-27%	-9%	13%	104%
2002	INTUIT		51	5%	-25%	-24%	-10%	0%	17%	45%	59%
2010	INTUIT		29	4%	-11%	-6%	-4%	1%	10%	25%	25%
2002	INTUIT		38	18%	-36%	-28%	3%	15%	33%	84%	112%
2003	INTUIT		44	6%	-39%	-25%	-4%	4%	15%	55%	67%
2004	INTUIT		38	1%	-23%	-20%	-6%	0%	10%	23%	30%
2005	INTUIT		36	17%	-9%	-1%	7%	18%	25%	44%	44%
2002	INTUIT		33	10%	-31%	-26%	-12%	14%	24%	41%	70%
2003	INTUIT		42	17%	-8%	-6%	0%	10%	23%	67%	142%
2004	INTUIT		48	8%	-11%	-8%	-3%	4%	16%	35%	47%
2005	INTUIT		53	16%	-10%	-3%	11%	17%	21%	35%	36%
2006	INTUIT		52	15%	-6%	-4%	6%	13%	24%	37%	47%
2007	INTUIT		59	15%	-20%	-13%	3%	14%	22%	58%	65%
2008	INTUIT		68	0%	-23%	-15%	-8%	-3%	5%	21%	47%

Appendix B

Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2009	INTUIT		67	23%	-16%	-6%	7%	21%	36%	51%	89%
2010	INTUIT		71	5%	-24%	-19%	-7%	-2%	17%	41%	70%
2008	INTUIT		30	2%	-12%	-12%	-6%	-2%	4%	24%	40%
2003	INTUIT		186	9%	-22%	-15%	0%	6%	17%	38%	74%
2004	INTUIT		272	2%	-23%	-13%	-5%	1%	6%	20%	40%
2005	INTUIT		307	14%	-11%	0%	7%	12%	19%	34%	53%
2006	INTUIT		384	10%	-23%	-8%	2%	9%	17%	31%	46%
2007	INTUIT		444	12%	-23%	-7%	2%	9%	19%	45%	80%
2008	INTUIT		449	0%	-27%	-12%	-6%	-2%	4%	15%	70%
2009	INTUIT		294	13%	-13%	-6%	5%	11%	20%	39%	85%
2010	INTUIT		293	2%	-35%	-17%	-8%	-1%	8%	35%	66%
2004	INTUIT		37	3%	-17%	-14%	-2%	3%	9%	22%	26%
2005	INTUIT		65	14%	-10%	0%	6%	13%	20%	32%	44%
2006	INTUIT		83	8%	-28%	-13%	2%	7%	16%	35%	49%
2007	INTUIT		101	11%	-18%	-7%	2%	10%	20%	37%	46%
2008	INTUIT		97	-1%	-18%	-13%	-6%	-3%	1%	14%	31%
2006	INTUIT		34	12%	-8%	-1%	6%	10%	17%	34%	35%
2007	INTUIT		55	6%	-13%	-6%	-1%	4%	11%	22%	28%
2008	INTUIT		71	3%	-10%	-8%	-2%	1%	6%	20%	28%
2009	INTUIT		59	16%	-7%	-4%	9%	11%	21%	48%	68%
2010	INTUIT		57	1%	-59%	-10%	-2%	0%	4%	26%	35%
2004	INTUIT		39	3%	-11%	-10%	-3%	3%	9%	17%	25%
2005	INTUIT		39	11%	-8%	0%	6%	9%	16%	25%	33%
2006	INTUIT		39	9%	-5%	-2%	4%	7%	14%	25%	26%
2007	INTUIT		41	2%	-12%	-12%	-1%	1%	6%	12%	15%
2008	INTUIT		34	1%	-8%	-8%	-5%	1%	7%	11%	11%
2003	INTUIT		89	6%	-33%	-20%	0%	4%	13%	36%	48%
2004	INTUIT		104	2%	-18%	-15%	-6%	-1%	7%	32%	47%
2005	INTUIT		134	15%	-23%	-4%	7%	14%	22%	36%	83%
2006	INTUIT		164	8%	-51%	-10%	2%	7%	17%	28%	59%
2007	INTUIT		189	12%	-27%	-11%	1%	10%	20%	44%	98%
2008	INTUIT		222	-2%	-23%	-17%	-8%	-3%	2%	14%	25%
2009	INTUIT		213	15%	-18%	-8%	5%	13%	24%	44%	129%

Appendix B

Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2010	INTUIT		222	1%	-31%	-19%	-10%	-1%	7%	28%	53%
2008	INTUIT		27	1%	-15%	-13%	-6%	1%	3%	6%	68%
2009	INTUIT		25	15%	-15%	-9%	0%	15%	31%	36%	55%
2010	INTUIT		30	3%	-31%	-21%	-5%	1%	9%	23%	102%
2007	INTUIT		41	3%	-21%	-17%	-8%	1%	13%	30%	33%
2008	INTUIT		43	1%	-13%	-11%	-5%	-1%	5%	21%	31%
2009	INTUIT		38	23%	-8%	6%	11%	17%	29%	54%	63%
2010	INTUIT		37	-2%	-29%	-19%	-6%	-2%	2%	21%	37%
2006	INTUIT		36	11%	-2%	-1%	6%	10%	16%	26%	27%
2007	INTUIT		25	10%	-8%	0%	4%	9%	15%	22%	36%
2008	INTUIT		28	4%	-9%	-6%	-1%	2%	6%	19%	35%
2009	INTUIT		27	10%	-5%	-2%	5%	8%	13%	32%	33%
2010	INTUIT		25	5%	-4%	-4%	2%	4%	9%	14%	17%
2001	INTUIT		41	-22%	-51%	-50%	-39%	-22%	-5%	14%	17%
2002	INTUIT		40	12%	-9%	-4%	3%	6%	18%	41%	59%
2003	INTUIT		46	3%	-12%	-12%	-5%	4%	8%	14%	14%
2001	INTUIT		32	-30%	-45%	-44%	-39%	-35%	-31%	6%	14%
2002	INTUIT		29	9%	-30%	-13%	1%	9%	21%	29%	37%
2003	INTUIT		27	7%	-18%	-18%	0%	8%	17%	20%	20%
2002	INTUIT		36	15%	-22%	-12%	0%	4%	31%	65%	75%
2003	INTUIT		32	15%	1%	1%	3%	17%	23%	31%	31%
2002	INTUIT		27	8%	-16%	-10%	0%	12%	15%	21%	22%
2003	INTUIT		25	5%	-14%	-14%	2%	7%	10%	18%	18%
2001	PIXAR	ANIMATOR	47	12%	-1%	1%	8%	11%	15%	19%	41%
2002	PIXAR	ANIMATOR	54	24%	-66%	-62%	12%	14%	15%	22%	595%
2003	PIXAR	ANIMATOR	60	-15%	-85%	-82%	-18%	-15%	-11%	1%	200%
2004	PIXAR	ANIMATOR	60	22%	-77%	-72%	15%	36%	57%	82%	96%
2005	PIXAR	ANIMATOR	61	26%	-64%	-14%	10%	20%	36%	120%	132%
2006	PIXAR	ANIMATOR	84	4%	-25%	-18%	-9%	0%	13%	51%	84%
2007	PIXAR	ANIMATOR	68	3%	-15%	-12%	-7%	-2%	7%	33%	67%
2008	PIXAR	ANIMATOR	87	-7%	-26%	-24%	-12%	-5%	-1%	5%	18%
2009	PIXAR	ANIMATOR	85	11%	-4%	3%	7%	10%	14%	23%	28%
2010	PIXAR	ANIMATOR	85	12%	-8%	3%	7%	11%	16%	27%	37%

Appendix B

Distribution of Yearly Change in Total Compensation (Job Titles in Leamer Supplemental Report Regressions)

Year	Employer	Job Title	Headcount	Average	Minimum	5th Percentile	25th Percentile	Median	75th Percentile	95th Percentile	Maximum
2006	PIXAR	ARTIST_STORY	25	-1%	-19%	-17%	-14%	-10%	11%	18%	45%
2007	PIXAR	ARTIST_STORY	30	3%	-16%	-12%	-6%	-4%	1%	24%	121%
2008	PIXAR	ARTIST_STORY	28	-3%	-20%	-17%	-13%	-10%	-1%	30%	41%
2009	PIXAR	ARTIST_STORY	31	14%	6%	6%	10%	11%	15%	32%	44%
2010	PIXAR	ARTIST_STORY	25	11%	-1%	0%	7%	9%	16%	23%	27%
2001	PIXAR	ENGINEER_SOFTWARE	40	1%	-55%	-53%	-37%	12%	15%	21%	133%
2002	PIXAR	ENGINEER_SOFTWARE	53	14%	-62%	-59%	-43%	14%	15%	23%	563%
2003	PIXAR	ENGINEER_SOFTWARE	60	-24%	-86%	-80%	-17%	-15%	-11%	-3%	3%
2004	PIXAR	ENGINEER_SOFTWARE	41	43%	-63%	13%	19%	40%	62%	94%	146%
2005	PIXAR	ENGINEER_SOFTWARE	30	30%	0%	1%	8%	24%	37%	96%	113%
2006	PIXAR	ENGINEER_SOFTWARE	37	5%	-23%	-17%	-15%	-5%	15%	65%	96%
2007	PIXAR	ENGINEER_SOFTWARE	38	-4%	-22%	-18%	-10%	-7%	-2%	27%	38%
2008	PIXAR	ENGINEER_SOFTWARE	41	-9%	-24%	-22%	-15%	-12%	-5%	6%	29%
2009	PIXAR	ENGINEER_SOFTWARE	45	11%	-11%	2%	9%	11%	12%	25%	30%
2010	PIXAR	ENGINEER_SOFTWARE	61	10%	0%	1%	5%	9%	11%	25%	42%
2001	PIXAR	TECHNICAL_DIRECTOR	120	0%	-61%	-56%	-24%	10%	15%	27%	199%
2002	PIXAR	TECHNICAL_DIRECTOR	125	7%	-71%	-64%	11%	14%	16%	22%	272%
2003	PIXAR	TECHNICAL_DIRECTOR	122	-18%	-81%	-76%	-17%	-15%	-13%	-1%	205%
2004	PIXAR	TECHNICAL_DIRECTOR	146	41%	-80%	-69%	17%	56%	73%	106%	167%
2005	PIXAR	TECHNICAL_DIRECTOR	163	23%	-71%	-57%	6%	24%	39%	84%	147%
2006	PIXAR	TECHNICAL_DIRECTOR	163	4%	-28%	-20%	-13%	0%	14%	47%	112%
2007	PIXAR	TECHNICAL_DIRECTOR	155	1%	-53%	-16%	-8%	-4%	5%	37%	121%
2008	PIXAR	TECHNICAL_DIRECTOR	170	-9%	-30%	-22%	-16%	-11%	-6%	19%	53%
2009	PIXAR	TECHNICAL_DIRECTOR	190	15%	-14%	1%	10%	14%	20%	32%	53%
2010	PIXAR	TECHNICAL_DIRECTOR	256	12%	-12%	0%	5%	10%	16%	31%	71%
2008	PIXAR	TECHNICAL_DIRECTOR_LEAD	28	-19%	-37%	-34%	-23%	-18%	-13%	-11%	7%
2009	PIXAR	TECHNICAL_DIRECTOR_LEAD	33	13%	0%	2%	8%	11%	19%	28%	41%

Notes: Job titles shown include those with at least 25 employees in a given year.

Source: Dr. Leamer's backup data. Leamer Supplemental Report Exhibits 1 and 2.

Appendix C

Curriculum Vitae

Kevin M. Murphy

June 2013

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Current Positions

July 2005-Present: George J. Stigler Distinguished Service Professor of Economics,
Department of Economics and Booth School of Business, University of Chicago

Faculty Research Associate, National Bureau of Economic Research

Education

University of California, Los Angeles, A.B., Economics, 1981

University of Chicago, Ph.D., 1986

Thesis Topic: *Specialization and Human Capital*

Previous Research and Academic Positions

2002-2005: George J. Stigler Professor of Economics, Department of Economics and
Booth School of Business, University of Chicago

1993 – 2002: George Pratt Shultz Professor of Business Economics and Industrial
Relations, University of Chicago

1989 – 1993: Professor of Business Economics and Industrial Relations, University of
Chicago

1988 – 1989: Associate Professor of Business Economics and Industrial Relations,
University of Chicago

1986 – 1988: Assistant Professor of Business Economics and Industrial Relations,
University of Chicago

1983 – 1986: Lecturer, Booth School of Business, University of Chicago

1982 – 1983: Teaching Associate, Department of Economics, University of Chicago

1979 – 1981: Research Assistant, Unicon Research Corporation, Santa Monica, California

Honors and Awards

2008: John von Neumann Lecture Award, Rajk College, Corvinus University, Budapest

2007: Kenneth J. Arrow Award (with Robert H. Topel)

October 2005: Garfield Research Prize (with Robert H. Topel)

September 2005: MacArthur Foundation Fellow

1998: Elected to the American Academy of Arts & Sciences

1997: John Bates Clark Medalist

1993: Fellow of The Econometric Society

1989 – 1991: Sloan Foundation Fellowship, University of Chicago

1983 – 1984: Earhart Foundation Fellowship, University of Chicago

1981 – 1983: Fellowship, Friedman Fund, University of Chicago

1980 – 1981: Phi Beta Kappa, University of California, Los Angeles

1980 – 1981: Earhart Foundation Fellowship, University of California, Los Angeles

1979 – 1981: Department Scholar, Department of Economics, University of California,
Los Angeles

Publications

Books

Social Economics: Market Behavior in a Social Environment with Gary S. Becker,
Cambridge, MA: Harvard University Press (2000).

Measuring the Gains from Medical Research: An Economic Approach edited volume
with Robert H. Topel, Chicago: University of Chicago Press (2003).

Articles

“Government Regulation of Cigarette Health Information,” with Benjamin Klein and Lynne Schneider, 24 *Journal of Law and Economics* 575 (1981).

“Estimation and Inference in Two-Step Econometric Models,” with Robert H. Topel, 3 *Journal of Business and Economic Statistics* 370 (1985).

“Unemployment, Risk, and Earnings: Testing for Equalizing Wage Differences in the Labor Market,” with Robert H. Topel, in Unemployment and the Structure of Labor Markets, pp. 103-139, ed. Kevin Lang and Jonathan S. Leonard. London: Basil Blackwell (1987).

“The Evolution of Unemployment in the United States: 1968-1985,” with Robert H. Topel, in NBER Macroeconomics Annual, pp. 11-58, ed. Stanley Fischer. Cambridge, MA: MIT Press (1987).

“Cohort Size and Earnings in the United States,” with Mark Plant and Finis Welch, in Economics of Changing Age Distributions in Developed Countries, pp. 39-58, ed. Ronald D. Lee, W. Brian Arthur, and Gerry Rodgers. Oxford: Clarendon Press, (1988).

“The Family and the State,” with Gary S. Becker, 31 *Journal of Law and Economics* 1 (1988).

“A Theory of Rational Addiction,” with Gary S. Becker, 96 *Journal of Political Economy* 675 (1988).

“Vertical Restraints and Contract Enforcement,” with Benjamin Klein, 31 *Journal of Law and Economics* 265 (1988).

“Income Distribution, Market Size, and Industrialization,” with Andrei Shleifer and Robert W. Vishny, 104 *Quarterly Journal of Economics* 537 (1989).

“Wage Premiums for College Graduates: Recent Growth and Possible Explanations,” with Finis Welch, 18 *Educational Researcher* 17 (1989).

“Industrialization and the Big Push,” with Andrei Shleifer and Robert W. Vishny, 97 *Journal of Political Economy* 1003 (1989).

“Building Blocks of Market Clearing Business Cycle Models,” with Andrei Shleifer and Robert W. Vishny, in NBER Macroeconomic Annual, pp. 247-87, ed. Olivier Jean Blanchard and Stanley Fischer. Cambridge, MA: MIT Press (1989).

“Efficiency Wages Reconsidered: Theory and Evidence,” with Robert H. Topel, in Advances in the Theory and Measurement of Unemployment, pp. 204-240. ed. Yoram Weiss and Gideon Fishelson. London: Macmillan, (1990).

“Empirical Age-Earnings Profiles,” with Finis Welch, 8 *Journal of Labor Economics* 202 (1990).

“Human Capital, Fertility, and Economic Growth,” with Gary S. Becker and Robert F. Tamura, 98 *Journal of Political Economy*, S12 (1990).

“Accounting for the Slowdown in Black-White Wage Convergence,” with Chinhui Juhn and Brooks Pierce, in Workers and Their Wages: Changing Patterns in the United States, pp. 107-143, ed. Marvin Kesters. Washington, D.C.: American Enterprise Institute (1991).

“The Role of International Trade in Wage Differentials,” with Finis Welch, in Workers and Their Wages: Changing Patterns in the United States, pp. 39- 69, ed. Marvin Kesters. Washington, D.C.: American Enterprise Institute (1991).

“Why Has the Natural Rate of Unemployment Increased over Time?” with Robert H. Topel and Chinhui Juhn, 2 *Brookings Papers on Economic Activity* 75 (1991).

“The Allocation of Talent: Implications for Growth,” with Andrei Shleifer and Robert W. Vishny, 106 *Quarterly Journal of Economics* 503 (1991).

“Rational Addiction and the Effect of Price on Consumption,” with Gary S. Becker and Michael Grossman, 81 *American Economic Review* 237 (1991).

“Wages of College Graduates,” in The Economics of American Higher Education, pp. 121-40, ed. William E. Becker and Darrell R. Lewis. Boston: Kluwer Academic Publishers (1992).

“Changes in Relative Wages, 1963-1987: Supply and Demand Factors,” with Lawrence F. Katz, 107 *Quarterly Journal of Economics* 35 (1992).

“The Structure of Wages,” with Finis Welch. 107 *Quarterly Journal of Economics* 285 (1992).

“The Transition to a Market Economy: Pitfalls of Partial Planning Reform,” with Andrei Shleifer and Robert W. Vishny, 107 *Quarterly Journal of Economics* 889 (1992).

“The Division of Labor, Coordination Costs, and Knowledge,” with Gary S. Becker, 107 *Quarterly Journal of Economics* 1137 (1992).

“Industrial Change and the Rising Importance of Skill” with Finis Welch, in Uneven Tides: Rising Inequality in America, pp. 101-132, ed. Peter Gottschalk and Sheldon Danziger. New York: Russell Sage Foundation Publications (1993).

“Wage Inequality and the Rise in Returns to Skill,” with Chinhui Juhn and Brooks Pierce, 101 *Journal of Political Economy* 410 (1993).

“Occupational Change and the Demand for Skill, 1940-1990,” with Finis Welch, 83 *American Economic Review* 122 (1993).

“Inequality and Relative Wages,” with Finis Welch, 83 *American Economic Review* 104 (1993).

“Why Is Rent-Seeking So Costly to Growth?” with Andrei Shleifer and Robert W. Vishny, 83 *American Economic Review* 409 (1993).

“A Simple Theory of Advertising as a Good or Bad,” with Gary S. Becker, 108 *Quarterly Journal of Economics* 941 (1993).

“Relative Wages and Skill Demand, 1940-1990,” with Chinhui Juhn, in Labor Markets, Employment Policy, and Job Creation, pp. 343-60, ed. Lewis C. Solmon and Alec R. Levenson. The Milken Institute Series in Economics and Education. Boulder, CO: Westview Press, (1994).

“Cattle Cycles,” with Sherwin Rosen and Jose A. Scheinkman, 102 *Journal of Political Economy* 468 (1994).

“An Empirical Analysis of Cigarette Addiction,” with Gary S. Becker and Michael Grossman, 84 *American Economic Review* 396 (1994).

“Inequality in Labor Market Outcomes: Contrasting the 1980s and Earlier Decades,” with Chinhui Juhn, 1 *Economic Policy Review* 26 (1995).

“Employment and the 1990-91 Minimum Wage Hike,” with Donald R. Deere and Finis Welch, 85 *American Economic Review* 232 (1995).

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“Social Status, Education, and Growth,” with Chaim Fershtman and Yoram Weissm, 104 *Journal of Political Economy* 108 (1996).

“Wage Inequality and Family Labor Supply,” with Chinhui Juhn, 15 *Journal of Labor Economics* 72 (1997).

“Quality and Trade,” with Andrei Shleifer, 53 *Journal of Development Economics* 1 (1997).

“Wage Inequality and Family Labor Supply,” with Chinhui Juhn, 15 *Journal of Labor Economics* 72 (1997).

“Vertical Integration as a Self-Enforcing Contractual Arrangement,” with Benjamin Klein, 87 *American Economic Review* 415 (1997).

“Unemployment and Nonemployment,” with Robert H. Topel, 87 *American Economic Review* 295 (1997).

“Wages, Skills, and Technology in the United States and Canada,” with W. Craig Riddell and Paul M. Romen, in General Purpose Technologies and Economic Growth, pp. 283-309, ed. Elhanan Helpman. Cambridge, MA: M.I.T. Press, (1998).

“Perspectives on the Social Security Crisis and Proposed Solutions,” with Finis Welch, 88 *American Economic Review* 142 (1998).

“Population and Economic Growth,” with Gary S. Becker and Edward Glaeser, 89 *American Economic Review* 145 (1999).

“A Competitive Perspective on Internet Explorer,” with Steven J. Davis, 90 *American Economic Review* 184 (2000).

“Industrial Change and the Demand for Skill” with Finis Welch, in The Causes and Consequences of Increasing Inequality, pp. 263-84, ed. Finis Welch. Volume II in the Bush School Series in the Economics of Public Policy. Chicago: University of Chicago Press, (2001).

“Wage Differentials in the 1990s: Is the Glass Half Full or Half Empty?” with Finis Welch, in The Causes and Consequences of Increasing Inequality, pp. 341-64, ed. Finis Welch. Volume II in the Bush School Series in the Economics of Public Policy. Chicago: University of Chicago Press, (2001).

“Economic Perspectives on Software Design: PC Operating Systems and Platforms,” with Steven J. Davis and Jack MacCriskin, in Microsoft, Antitrust, and the New Economy: Selected Essays, pp. 361-420, ed. Davis S. Evans. Boston, MA: Kluwer, (2001).

“Current Unemployment, Historically Contemplated,” with Robert H. Topel and Chinhui Juhn, 1 *Brookings Papers on Economic Activity* 79 (2002).

“The Economics of Copyright ‘Fair Use’ in A Networked World,” with Andres Lerner and Benjamin Klein, 92 *American Economic Review* 205 (2002).

“The Economic Value of Medical Research” with Robert H. Topel, in Measuring the Gains from Medical Research: An Economic Approach, pp. 41-73, ed. Robert H. Topel and Kevin M. Murphy. Chicago: University of Chicago Press, (2003).

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“Entrepreneurial ability and market selection in an infant industry: evidence from the Japanese cotton spinning industry,” with Atsushi Ohyama and Serguey Braguinsky, 7 *Review of Economic Dynamics* 354 (2004).

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“Persuasion in Politics,” with Andrei Shleifer, 94 *American Economic Review* 435 (May 2004).

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“The Value of Health and Longevity,” with Robert H. Topel, 114 *Journal of Political Economy* 871 (2006).

“Social Value and the Speed of Innovation,” with Robert H. Topel, 97 *American Economic Review* 433 (2007).

“Education and Consumption: The Effects of Education in the Household Compared to the Marketplace,” with Gary S. Becker, 1 *The Journal of Human Capital* 9 (Winter 2007).

“Why Does Human Capital Need a Journal?” with Isaac Ehrlich, 1 *The Journal of Human Capital* 1 (Winter 2007).

“Critical Loss Analysis in the *Whole Foods* Case” with Robert H. Topel, 3 (2) *GCP Magazine* (March 2008).

“Exclusive Dealing Intensifies Competition for Distribution,” with Benjamin Klein, *Antitrust Law Journal*, Vol. 75 (October 2008).

“Fertility Decline, the Baby Boom and Economic Growth,” with Curtis Simon and Robert Tamura, 2 *The Journal of Human Capital* 3 (Fall 2008).

“The Market for College Graduates and the Worldwide Boom in Higher Education of Women” with Gary S. Becker and William H. J. Hubbard, 100 *American Economic Review: Papers & Proceedings* 229 (May 2010).

"Explaining the Worldwide Boom in Higher Education of Women," with Gary S. Becker & William H. J. Hubbard," *Journal of Human Capital*, University of Chicago Press, vol. 4(3), 203 (2010).

"How Exclusivity is Used to Intensify Competition for Distribution-Reply to Zenger," with Benjamin Klein, 77 *Antitrust Law Journal* No. 2 (2011).

"Achieving Maximum Long-Run Growth," *Federal Reserve Bank of Kansas City Proceedings of the Annual Jackson Hole Conference 2011*.

Selected Working Papers

"Gauging the Economic Impact of September 11th," with Gary S. Becker, Unpublished Working Paper (October 2001).

"War In Iraq Versus Containment: Weighing the Costs," with Steven J. Davis and Robert H. Topel, *NBER Working Paper No. 12092* (March 2006).

"Estimating the Effect of the Crack Epidemic," with Steve Levitt and Roland Fryer, Unpublished Working Paper (September 2006).

"The Interaction of Growth in Population and Income," with Gary S. Becker, Unpublished Working Paper (2006).

"Persuasion and Indoctrination," with Gary Becker (2007).

"The Value of Life Near Its End and Terminal Care," with Gary S. Becker and Tomas Philipson (2007).

"On the Economics of Climate Policy," with Gary S. Becker and Robert H. Topel, Working Paper No. 234 (January 2010, Revised September 2010).

"The Collective Licensing of Music Performance Rights: Market Power, Competition and Direct Licensing" (March 2013).

"Competitive Discounts and Antitrust Policy," with Edward Snyder and Robert Topel (March 2013).

Selected Comments

Comment on "Causes of Changing Earnings Equality," by Robert Z. Lawrence. Federal Reserve Bank of Kansas City (1998).

"Comment: Asking the Right Questions in the Medicare Reform Debate," Medicare Reform: Issues and Answers, pp. 175-81, ed. Andrew J. Rettenmaier and Thomas R. Saving. Chicago: University of Chicago Press (2000).

Comment on “Social Security and Demographic Uncertainty,” by Henning Bohn in Risk Aspects of Investment-Based Social Security Reform, ed. John Y. Campbell and Martin Feldstein. Chicago: University of Chicago Press (2001.)

Comment on “High Technology Industries and Market Structure,” by Hal R. Varian. Federal Reserve Bank of Kansas City (2001).

Popular Press Articles

“The Education Gap Rap,” *The American Enterprise*, (March-April 1990), pp. 62.

“Rethinking Antitrust,” with Gary S. Becker, *Wall Street Journal*, (February 26, 2001) pp. pA22.

“Prosperity Will Rise Out of the Ashes,” with Gary S. Becker, *Wall Street Journal*, (October 29, 2001) pp. pA22.

“The Economics of NFL Team Ownership” with Robert H. Topel, report prepared at the request of the National Football League Players’ Association. (January 2009).

Articles About Murphy

“Higher Learning Clearly Means Higher Earning,” by Carol Kleiman. *Chicago Tribune*, March 12, 1989, Jobs Section pp. 1. Long article about “The Structure of Wages” with picture of Murphy.

“Why the Middle Class Is Anxious,” by Louis S. Richman. *Fortune*, May 21, 1990, pp. 106. Extensive reference to Murphy's work on returns to education.

“Unequal Pay Widespread in U.S.,” by Louis Uchitelle., *New York Times*, August 14, 1990, Business Day section pp. 1. Long piece on income inequality.

“One Study’s Rags to Riches Is Another’s Rut of Poverty,” by Sylvia Nasar, *New York Times*, June 17, 1992, Business Section pp. 1. Long piece on the income inequality research.

“Nobels Pile Up for Chicago, but Is the Glory Gone?” by Sylvia Nasar, *New York Times* November 4, 1993, Business Section pp. 1. Long piece on Chicago School of economics. Featured a photo of five of the “brightest stars on the economics faculty” (including Murphy) and a paragraph about Murphy’s research.

“This Sin Tax is Win-Win,” by Christopher Farrell. *Business Week*, April 11, 1994, pp. 30. Commentary section refers to Murphy, Becker, and Grossman’s work on rational addiction.

“Growing inequality and the economics of fragmentation,” by David Warsh, *Boston Sunday Globe*, August 21, 1994, pp. A1. Two-page article with picture and biographical details about Murphy and his research; part of a series about “how the new generation replaced the old in economics.”

“A Pay Raise’s Impact,” by Louis Uchitelle. *New York Times*, January 12, 1995, Business Section pp. 1. Article about consequences of proposed increase in the minimum wage. Articles featuring Murphy's comments on the minimum wage appeared in numerous other publications, including the *Chicago Tribune*; in addition, Murphy was interviewed on CNN (January 26, 1995).

“The Undereducated American,” *Wall Street Journal*, August 19, 1996, pp. A12. Changes in the rate of returns to education.

“In Honor of Kevin M. Murphy: Winner of the John Bates Clark Medal,” by Finis Welch, 14 *Journal of Economic Perspectives* 193 (2000).

Testimony, Reports, and Depositions (Last 4 Years)

Final Submission of Kevin M. Murphy, January 16, 2009, in the 2006 MSA Adjustment Proceeding.

Expert Report of Kevin M. Murphy, January 23, 2009, in the Matter of City of New York v. Amerada Hess Corp., et al., The United States District Court for the Southern District of New York. Report submitted on behalf of Citgo Petroleum Corporation.

Declaration of Kevin M. Murphy, January 29, 2009, in the Matter of Insignia Systems, Inc. v. News America Marketing In-Store, Inc., The United States District Court for the District of Minnesota.

Deposition of Kevin M. Murphy, February 10, 2009, in the Matter of Valassis Communications, Inc. v. News America Incorporated, a/k/a News America Marketing Group, News America FSI, Inc. a/k/a News America Marketing FSI, LLC and News America Marketing In-Store Services, Inc. a/a/a News American Marketing In-Store Services, LLC., The United States Third Circuit Court of Michigan Detroit Division. Case No. 07-706645.

Expert Report of Kevin M. Murphy, February 13, 2009, in the Matter of City of New York v. Amerada Hess Corp., et al., The United States District Court for the Southern District of New York. Report submitted on behalf of Citgo Petroleum Corporation regarding Citgo’s share of total RFG supply at the New York Harbor.

Expert Report of Kevin M. Murphy, March 3, 2009, in the Matter of St. Francis Medical Center, on behalf of itself and all others similarly situated vs. C.R. Bard, Inc., The United States District Court for the Eastern District of Missouri Southeastern Division.

Deposition of Kevin M. Murphy, March 6, 2009, in the Matter of St. Francis Medical Center, on behalf of itself and all others similarly situated vs. C.R. Bard, Inc., The United States District Court for the Eastern District of Missouri Southeastern Division.

Expert Report of Kevin M. Murphy, March 17, 2009, in the Matter of ZF Meritor LLC and Meritor Transmission Corporation v. Eaton Corporation., The United States District Court of Delaware. Case No. 06-CV-623.

Deposition of Kevin M. Murphy, April 6, 2009, in the Matter of ZF Meritor LLC and Meritor Transmission Corporation v. Eaton Corporation., The United States District Court of Delaware. Case No. 06-CV-623.

Declaration of Kevin M. Murphy, April 16, 2009, in the Matter of Sun Microsystems, Inc., a California corporation v. Hynix Semiconductor Inc., et al., The United States District Court Northern District of California San Francisco Division.

Declaration of Kevin M. Murphy, April 23, 2009, in the Matter of Sun Microsystems, Inc., a California corporation v. Hynix Semiconductor Inc., a Korean corporation, Hynix Semiconductor America Inc., a California corporation, et al., The United States District Court Northern District of California San Francisco Division.

Expert Report of Kevin M. Murphy, May 11, 2009, in the Matter of Jim Hood, Attorney General ex rel State of Mississippi v. Microsoft Corporation., The Chancery Court of Hinds County First Judicial District.

Expert Report of Professor Kevin M. Murphy, June 12, 2009, in the Matter of CITGO Petroleum Corporation v. Ranger Enterprises, Inc., The United States District Court for the Western District of Wisconsin.

Expert Report of Kevin M. Murphy, June 24, 2009, in the Matter of Novell, Incorporated v. Microsoft Corporation., The United States District Court Northern District of Maryland.

Trial Testimony of Kevin M. Murphy, July 16, 2009, in the Matter of Valassis Communications, Inc. v. News America Incorporated, a/k/a News America Marketing Group, News America FSI, Inc. a/k/a News America Marketing FSI, LLC and News America Marketing In-Store Services, Inc. a/a/a News American Marketing In-Store Services, LLC., The United States Third Circuit Court of Michigan Detroit Division. Case No. 07-706645.

Declaration of Kevin M. Murphy, August 14, 2009, in the Matter of EBay Seller Antitrust Litigation, The United States District Court for the Northern District of California. Declaration submitted in support of defendant Ebay Inc.'s motion for summary judgment.

Expert Report of Kevin M. Murphy, August 21, 2009, in the Matter of Go Computer, Inc., and S. Jerrold Kaplan v. Microsoft Corporation., The Superior Court for the State of California for the City and County of San Francisco.

Deposition of Kevin M. Murphy, September 16, 2009, in the Matter of Novell, Incorporated v. Microsoft Corporation., The United States District Court Northern District of Maryland.

Deposition of Kevin M. Murphy, September 21, 2009, in the Matter of Ebay Seller Antitrust Litigation, The United States District Court for the Northern District of California. Deposition in support of defendant Ebay Inc.'s motion for summary judgment.

Expert Report of Kevin M. Murphy, September 29, 2009, in the Matter of Motor Fuel Temperature Sales Litigation, The United States District Court of Kansas.

Trial Testimony of Kevin M. Murphy, October 1, 2009, in the Matter of ZF Meritor LLC and Meritor Transmission Corporation v. Eaton Corporation., The United States District Court of Delaware. Case No. 06-CV-623.

Declaration of Kevin M. Murphy, October 16, 2009, in the Matter of Ebay Seller Antitrust Litigation, The United States District Court for the Northern District of California. Declaration in further support of defendant Ebay Inc.'s motion for summary judgment.

Expert Report of Kevin M. Murphy, October 20, 2009, in the Matter of Advanced Micro Devices, Inc., and AMD International Sales & Service, LTD v. Intel Corporation and Intel Kabushiki Kaisha., The United States District Court for the District of Delaware.

Deposition of Kevin M. Murphy, October 24, 2009, in the Matter of Go Computer, Inc., and S. Jerrold Kaplan v. Microsoft Corporation., The Superior Court for the State of California for the City and County of San Francisco.

Deposition of Kevin M. Murphy, October 26, 2009, in the Matter of Motor Fuel Temperature Sales Litigation, The United States District Court of Kansas.

Expert Report of Kevin M. Murphy, December 14, 2009, in the Matter of Payment Card Interchange Fee and Merchant Discount Antitrust Litigation, The United States District Court for the Eastern District of New York.

Supplemental Expert Report of Kevin M. Murphy, December 21, 2009, in the Matter of Valassis Communications, Inc. v. News America Incorporated, a/k/a News America Marketing Group, News America FSI, Inc. a/k/a News America Marketing FSI, LLC and News America Marketing In-Store Services, Inc. a/a/a News American Marketing In-Store Services, LLC., The United States Third Circuit Court of Michigan Detroit Division. Case No. 07-706645.

Trial Testimony of Kevin M. Murphy, January 11, 2010, in the Matter of Go Computer, Inc., and S. Jerrold Kaplan v. Microsoft Corporation., The Superior Court for the State of California for the City and County of San Francisco.

Supplemental Rebuttal Expert Report of Kevin M. Murphy, January 14, 2010, in the Matter of Valassis Communications, Inc. v. News America Incorporated, a/k/a News America Marketing Group, News America FSI, Inc. a/k/a News America Marketing FSI, LLC and News America Marketing In-Store Services, Inc. a/a/a News American Marketing In-Store Services, LLC., The United States Third Circuit Court of Michigan Detroit Division. Case No. 07-706645.

Deposition of Kevin M. Murphy, January 26, 2010, in the Matter of Valassis Communications, Inc. v. News America Incorporated, a/k/a News America Marketing Group, News America FSI, Inc. a/k/a News America Marketing FSI, LLC and News America Marketing In-Store Services, Inc. a/a/a News American Marketing In-Store Services, LLC., The United States Third Circuit Court of Michigan Detroit Division. Case No. 07-706645.

Declaration of Kevin M. Murphy, January 28, 2010, in the Matter of Automobile Antitrust Cases I and II., The United States Superior Court of the State of California for the County of San Francisco.

Declaration of Kevin M. Murphy, April 2, 2010, in the Matter of the Application for the Determination of Interim License Fees for The Cromwell Group, Inc. and Affiliates, et al., The United States District Court Southern District of New York.

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Supplemental Expert Report of Kevin M. Murphy, June 1, 2010, in the Matter of Insignia Systems, Inc. v. News America Marketing In-Store, Inc. (corrected June 8, 2010)., The United States District Court for the District of Minnesota.

Expert Report of Kevin M. Murphy, June 21, 2010, in the Matter of Applications of Comcast Corporation, General Electric Company and NBC Universal, Inc., for Consent to Assign Licenses or Transfer Control of Licensees., Federal Communications Commission.

Supplement to Expert Report of Kevin M. Murphy, June 24, 2010, in the Matter of Payment Card Interchange Fee and Merchant Discount Antitrust Litigation., The United States District Court for the Eastern District of New York.

Second Supplemental Expert Report of Kevin M. Murphy, July 6, 2010, in the Matter of Insignia Systems, Inc. v. News America Marketing In-Store, Inc., The United States District Court for the District of Minnesota.

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Expert Report of Kevin M. Murphy, July 28, 2010, in the Matter of Commonwealth of Pennsylvania by Thomas W. Corbett, Jr., in his capacity as Attorney General of the Commonwealth of Pennsylvania v. TAP Pharmaceutical Products, Inc., et al., in the Commonwealth Court of Pennsylvania, No. 212 MD 2004.

Response of Kevin M. Murphy to Reply Report of Mark Israel and Michael Katz, August 19, 2010, in the Matter of Applications of Comcast Corporation, General Electric Company and NBC Universal, Inc., for Consent to Assign Licenses or Transfer Control of Licensees., Federal Communications Commission.

Expert Report of Kevin M. Murphy, September 14, 2010, in the Matter of City of St. Louis, et al. v. American Tobacco Co., et al., The Circuit Court of the City of St. Louis State of Missouri.

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Supplemental Expert Report of Kevin M. Murphy, September 30, 2010, in the Matter of Commonwealth of Pennsylvania by Thomas W. Corbett, Jr., in his capacity as Attorney General of the Commonwealth of Pennsylvania v. TAP Pharmaceutical Products, Inc., et al., in the Commonwealth Court of Pennsylvania, No. 212 MD 2004.

Expert Report of Kevin M. Murphy, October 1, 2010, in the Matter of State of New Hampshire v. Hess Corporation, et al., The State of New Hampshire Superior Court.

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Declaration of Kevin M. Murphy, November 12, 2010, in the Matter of RWJ Management Company, Inc. v. BP Products North America, Inc., The United States District Court for the Northern District of Illinois Eastern Division.

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Expert Report of Kevin M. Murphy, November 19, 2010, in the Matter of Craft, et al., v. Philip Morris Companies, Inc., a corporation, and Philip Morris Incorporated, a corporation, Missouri Circuit Court, Twenty-Second Judicial District (City of St. Louis), Case No. 002-00406-02.

Economic Analysis of Kevin M. Murphy to Guide Interpretation of Provisions of the Dodd-Frank Act Regarding Regulation of Debit Interchange Fees, November 23, 2010, submission on behalf of Bank of America Corporation.

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Expert Report of Kevin M. Murphy, November 29, 2010, in the Matter of Reggie White, et al., v. NFL: Lockout Insurance & Lockout Loans., The United States District Court District of Minnesota.

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Report of Kevin M. Murphy, February 15, 2011, submitted by TCF Financial Corporation on February 16, 2011 to the Subcommittee on Financial Institutions and Consumer Credit of the Committee on Financial Services of the U.S. House of Representatives.

Declaration of Kevin M. Murphy, March 2, 2011, in the Matter of TCF National Bank v. Ben S. Bernanke, Janet L. Yellen, Kevin M. Warsh, Elizabeth A. Duke, Daniel K. Tarullo and Sarah Bloom Raskin, the Board of Governors of the Federal Reserve System, in their official capacities; and John Walsh, Comptroller of the Currency, in his official capacity.

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Declaration of Kevin M. Murphy, May 26, 2011, filed with the National Labor Relations Board on behalf of the National Basketball Players Association.

Deposition of Kevin M. Murphy, June 14, 2011, in the Matter of Datel Holdings, LTD., and Datel Design & Development, Inc., v. Microsoft Corporation., The United States District Court Northern District of California.

Expert Report of Kevin M. Murphy, July 1, 2011, in the Matter of Certain Gaming and Entertainment Consoles, Related Software, and Components Thereof., The United States International Trade Commission.

Expert Report of Kevin M. Murphy, August 17, 2011, in the Matter of American Airlines, Inc. v. Sabre Inc., et al., The Judicial District of Tarrant County, Texas 67th Judicial District.

Expert Report of Kevin M. Murphy, August 19, 2011, in the Matter of Motor Fuel Temperature Sales Litigation, The United States District Court for the District of Kansas.

Deposition of Kevin M. Murphy, September 6, 2011, in the Matter of Certain Gaming and Entertainment Consoles, Related Software, and Components Thereof., The United States International Trade Commission.

Expert Report of Kevin M. Murphy, September 9, 2011, in the Matter of State of New York v. Intel Corporation, The United States District Court for the District of Delaware.

Deposition of Kevin M. Murphy, September 14, 2011, in the Matter of Motor Fuel Temperature Sales Litigation, The United States District Court for the District of Kansas.

Direct Testimony of Kevin M. Murphy, September 27, 2011, in the Matter of Certain Gaming and Entertainment Consoles, Related Software, and Components Thereof., The United States International Trade Commission.

Deposition of Kevin M. Murphy, October 8-10, 2011, in the Matter of State of New York v. Intel Corporation, The United States District Court for the District of Delaware.

Report of Kevin M. Murphy, October 10, 2011, in connection with dispute between NRLC and railroad employees, National Mediation Board Case Nos. A-13569; A-13570; A-13572; A-13573; A-13574; A-13575; A-13592, before Emergency Board No. 243.

Hearing Testimony of Kevin M. Murphy, October 13, 2011, in connection with dispute between NRLC and railroad employees, National Mediation Board Case Nos. A-13569; A-13570; A-13572; A-13573; A-13574; A-13575; A-13592, before Emergency Board No. 243.

Expert Report of Kevin M. Murphy, October 17, 2011, in the Matter of State of New Hampshire v. Hess Corporation, et al., The State of New Hampshire Superior Court.

Declaration of Kevin M. Murphy, December 1, 2011, the Matter of Motor Fuel Temperature Sales Litigation, The United States District Court for the District of Kansas.

Expert Report of Kevin M. Murphy, December 5, 2011, in the Matter of Retractable Technologies, Inc. and Thomas Shaw v. Becton, Dickinson and Company, The United States District Court for the Eastern District of Texas Marshall Division.

Trial Testimony of Kevin M. Murphy, December 7-8, 2011, in the Matter of Novell, Incorporated v. Microsoft Corporation., The United States District Court Northern District of Maryland.

Trial Testimony of Kevin M. Murphy, December 29, 2011, in the Matter of RWJ Management Company, Inc. v. BP Products North America, Inc., The United States District Court for the Northern District of Illinois Eastern Division.

Supplemental Expert Report of Kevin M. Murphy, January 15, 2012, in the Matter of Retractable Technologies, Inc. and Thomas Shaw v. Becton, Dickinson and Company, The United States District Court for the Eastern District of Texas Marshall Division.

Trial Testimony of Kevin M. Murphy, January 18, 2012, in the Matter of Certain Gaming and Entertainment Consoles, Related Software, and Components Thereof., The United States International Trade Commission.

Supplemental Expert Report of Kevin M. Murphy, February 23, 2012, in the Matter of State of New Hampshire v. Hess Corporation, et al., The State of New Hampshire Superior Court.

Affidavit of Kevin M. Murphy, March 12, 2012, in the Matter of Sharon Price and Michael Fruth, Individually and on Behalf of Others Similarly Situated vs. Philip Morris Incorporated, The United States Circuit Court, Third Judicial Court, Madison County, Illinois.

Declaration of Kevin M. Murphy, May 3, 2012, in the Matter of Retractable Technologies, Inc. and Thomas Shaw v. Becton, Dickinson and Company, The United States District Court for the Eastern District of Texas Marshall Division.

Comments of Kevin M. Murphy of DirecTV, LLC, June 22, 2012, in the Matter of Revision of the Commission's Program Access Rules; News Corporation and the DIRECTV Group, Inc., Transferors, and Liberty Media Corporation, Transferee, for Authority to Transfer Control; Applications for Consent to the Assignment and/or Transfer of Control of Licenses, Adelphia Communications Corporation (and Subsidiaries, Debtors-in-Possession), Assignors, to Time Warner Cable, Inc. (Subsidiaries), Assignees, et al., Federal Communications Commission.

Expert Report of Kevin M. Murphy, July 20, 2012, in the Matter of American Airlines v. Sabre, Inc., Sabre Holdings Corp., and Sabre Travel International Ltd., The United States Judicial District Tarrant County, Texas 67th Judicial District.

Declaration of Kevin M. Murphy, July 21, 2012, in the Matter of Kirk Dahl v. Bain Capital Partners, LLC., The United States District Court District of Massachusetts.

Expert Report of Kevin M. Murphy, July 23, 2012, in the Matter of Kirk Dahl v. Bain Capital Partners, LLC., The United States District Court District of Massachusetts.

Expert Report of Kevin M. Murphy, July 24, 2012, in the Matter of Microsoft Corporation v. Motorola, Inc., The United States District Court Western District of Washington at Seattle.

Deposition of Kevin M. Murphy, August 22, 2012, in the Matter of Microsoft Corporation v. Motorola, Inc., The United States District Court Western District of Washington at Seattle.

“Economic Analysis of the Impact on DIRECTV’s Subscribership of Carrying an RSN: Evidence from San Diego,” August 31, 2012, submitted in the Matter of Revision of the Commission’s Program Access Rules; News Corporation and the DIRECTV Group, Inc., Transferors, and Liberty Media Corporation, Transferee, for Authority to Transfer Control; Applications for Consent to the Assignment and/or Transfer of Control of Licenses, Adelphia Communications Corporation (and Subsidiaries, Debtors-in-Possession), Assignors, to Time Warner Cable, Inc. (Subsidiaries), Assignees, et al., Federal Communications Commission.)

Expert Report of Kevin M. Murphy, September 7, 2102, in the Matter of Willard R. Brown, et al. v. The American Tobacco Co., Inc., et al., Superior Court for the State of California for the County of San Diego.

Deposition of Kevin M. Murphy, September 14, 2012, in the Matter of Willard R. Brown, et al. v. The American Tobacco Co., Inc., et al., Superior Court for the State of California for the County of San Diego.

Deposition of Kevin M. Murphy, September 24, 2012, in the Matter of American Airlines Inc. v Sabre, Inc., Sabre Holdings Corp., and Sabre Travel International Ltd. for the State of Texas for the Judicial District of Tarrant County.

Expert Report of Kevin M. Murphy, October 10, 2012, in the Matter of Avery Dennison Corporation v. 3M Innovative Properties and 3M Company, The United States District Court for the District of Minnesota.

Expert Report of Kevin M. Murphy, November 12, 2012, in the Matter of Re High-Tech Employee Antitrust Litigation, The United States District Court Northern District of California San Jose Division.

Trial Testimony of Kevin M. Murphy, November 13, 2012, in the Matter of Microsoft Corporation v. Motorola INC, The United States District Court Western District of Washington at Seattle.

Expert Report of Kevin M. Murphy, November 15, 2012, in the Matter of New Jersey Dep't of Env'tl. Prot., et al. v. Atlantic Richfield Co., et al., The United States District Court Southern District of New York.

Deposition of Kevin M. Murphy, December 3, 2012, in the Matter of Re High-Tech Employee Antitrust Litigation, The United States District Court Northern District of California San Jose Division

Expert Report of Kevin M. Murphy, December 21, 2012, in re: Titanium Dioxide Antitrust Litigation, The United States District Court for the District of Maryland.

Deposition of Kevin Murphy, January 16, 2013, in the Matter of Avery Dennison Corporation v. 3M Innovative Properties and 3M Company, The United States District Court for the District of Minnesota.

Amended Expert Report of Kevin M. Murphy, February 8, 2013, in the Matter of New Jersey Dep't of Env'tl. Prot., et al. v. Atlantic Richfield Co., et al, The United States District Court Southern District of New York.

Expert Report of Professor Kevin M. Murphy, February 8, 2013, in United States of America v. Apple Inc., et al., The United States District Court Southern District of New York.

Declaration of Kevin M. Murphy, February 22, 2013, in the Matter of Willard R. Brown, et al. v. The American Tobacco Co., Inc., et al., Superior Court for the State of California for the County of San Diego.

Rebuttal Expert Report of Kevin M. Murphy, March 1, 2013, in United States of America v. Apple Inc., et al., The United States District Court Southern District of New York.

Second Supplemental Expert Report of Kevin M. Murphy, March 8, 2013, in the Matter of Retractable Technologies, Inc. and Thomas Shaw v. Becton, Dickinson and Company, The United States District Court for the Eastern District of Texas Marshall Division.

Direct Testimony of Kevin M. Murphy, April 26, 2013, in United States of America v. Apple Inc., et al., The United States District Court Southern District of New York (revised and resubmitted on May 29, 2013).

Declaration of Kevin M. Murphy, May 13, 2013, in the Matter of Brenda Blakeman v National Milk Producers Federation, et al., The United States District Court for the Southern District of Illinois.

Expert Report of Kevin M. Murphy, May 29, 2013, in the Matter of Microsoft Corporation v. Motorola, Inc., et al., The United States District Court Western District of Washington at Seattle.

Declaration of Kevin M. Murphy, June 6, 2013, in the Matter of WNET, Thirteen, Fox Television Stations, Inc.; Twentieth Century Fox Film Corporation, WPIX, Inc., Univision Television Group, Inc.; The Univision Network Limited Partnership, and Public Broadcasting Service v. Aereo, Inc. f/k/a Bamboom Labs, Inc., The United States Court for the Southern District of New York.

Expert Report of Kevin M. Murphy, June 7, 2013, in the Matter of Patrick Brady, et al., v. Airline Pilots Association, International, The United States District Court District of New Jersey.

Rebuttal Expert Report of Kevin M. Murphy, June 10, 2013, in the Matter of Microsoft Corporation v. Motorola, Inc., et al., The United States District Court Western District of Washington at Seattle.

Trial Testimony of Kevin M. Murphy, June 19, 2013, in United States of America v. Apple Inc., et al., The United States District Court Southern District of New York.

Appendix D

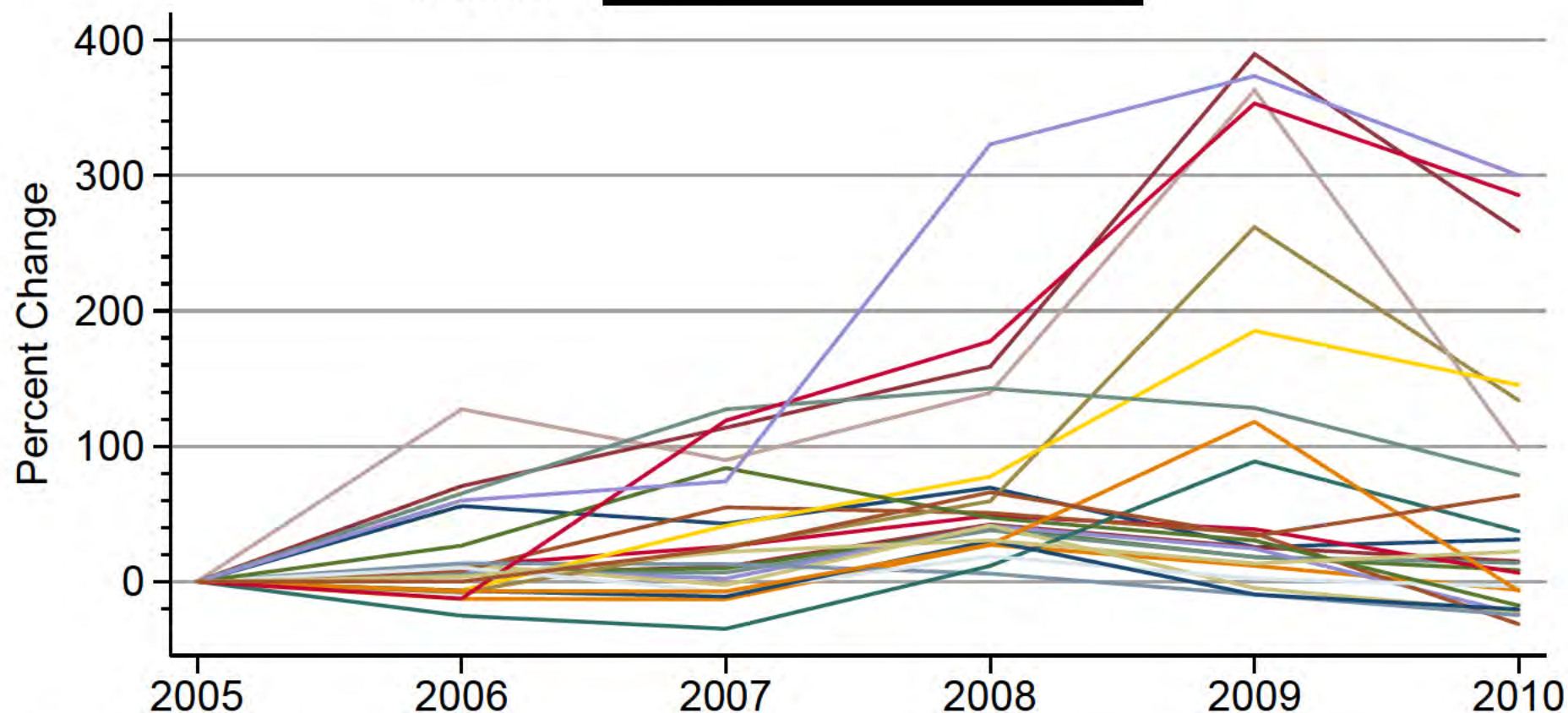
Materials Relied Upon

Court Documents
In Re: High-Tech Employee Antitrust Litigation, Order Granting in Part, Denying in Part Motion for Class Certification, April 4, 2013
In Re: High-Tech Employee Antitrust Litigation, Transcript of Proceedings Before The Honorable Lucy H. Koh United States District Judge, January 17, 2013
In Re: High-Tech Employee Antitrust Litigation, Plaintiffs' Supplemental Motion and Brief in Support of Class Certification, May 10, 2013
Deposition Transcripts
Deposition of Edward E. Leamer, June 11, 2013
Expert Reports
In Re: High-Tech Employee Antitrust Litigation, Expert Report of Edward E. Leamer, Ph.D., October 1, 2012
In Re: High-Tech Employee Antitrust Litigation, Supplemental Expert Report of Edward E. Leamer, Ph.D., May 10, 2013
In Re: High-Tech Employee Antitrust Litigation, Expert Report of Professor Kevin M. Murphy, January 17, 2013
Academic Sources
George Casella and Roger L. Berger, <i>Statistical Inference</i> . 1990
William H. Greene, <i>Econometric Analysis</i> . Sixth Edition
Milton Friedman, "Do Old Fallacies Ever Die?," <i>Journal of Economic Literature</i> 30 (1992): 2129-2132.
Susan E. Jackson et al., <i>Managing Human Resources</i> . Eleventh Edition
ChangHwan Kim and Christopher R. Tamborini, "Do Survey Data Estimate Earnings Inequality Correctly? Measurement Errors Among Black and White Male Coworkers," <i>Social Forces</i> (2012)
Charles F. Manski, "Economic Analysis of Social Interactions," <i>Journal of Economic Perspectives</i> 14 (2000): 115-136
Robert A. Moffitt, "Policy Interventions, Low-Level Equilibria, and Social Interactions" in <i>Social Dynamics</i> . MIT Press, 2001
Robert S. Pindyck and Daniel L. Rubinfeld, <i>Econometric Models and Economic Forecasts</i> . Fourth Edition
Donggyun Shin and Gary Solon, "New Evidence on Real Wage Cyclicity within Employer-Employee Matches," <i>Scottish Journal of Political Economy</i> 54 (2007)
Nate Silver, <i>The Signal and the Noise</i> . Penguin, 2012
Other Sources
Agam Shah, "Intel Freezes Salaries from CEO on Down," <i>Computerworld</i> , March 23, 2009
The Integrated Public Use Microdata Series (IPUMS-USA) (https://usa.ipums.org/usa/)

Exhibit 1 Adobe

There is Substantial Variation in the Cumulative Change in Total Compensation Among Employees with the Same 2005 Job

Adobe – [REDACTED]



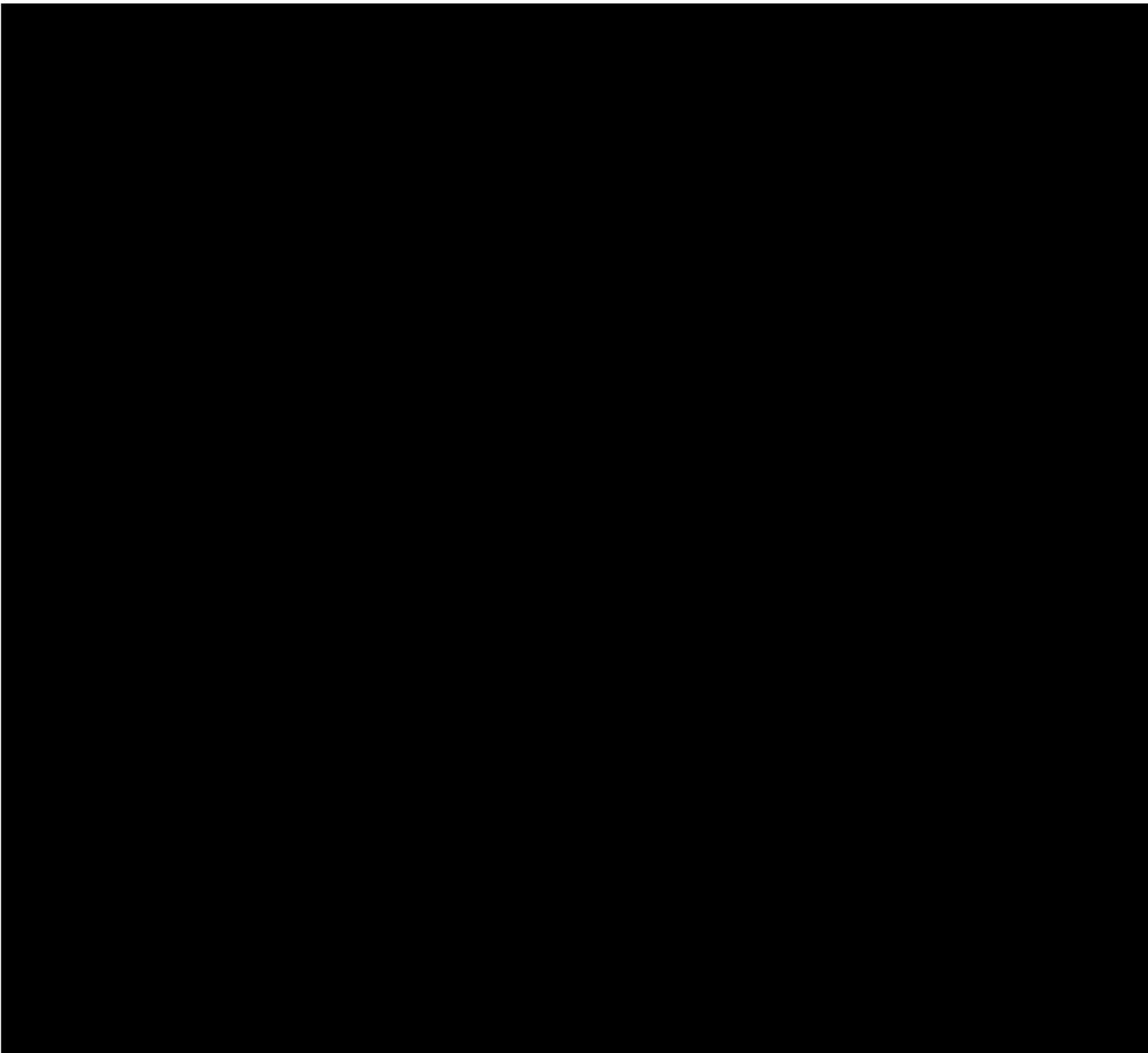
Notes:

- [1] Each line represents the cumulative compensation change for an individual employee.
- [2] Data are restricted to those employees who remained in RD class positions through 2010. I then selected the Adobe job title with 25 employees (or the closest number to 25).

Source: Dr. Leamer's backup data and materials.

Exhibit 1 Apple & Google

There is Substantial Variation in the Cumulative Change in Total Compensation Among Employees with the Same 2005 Job



Notes:

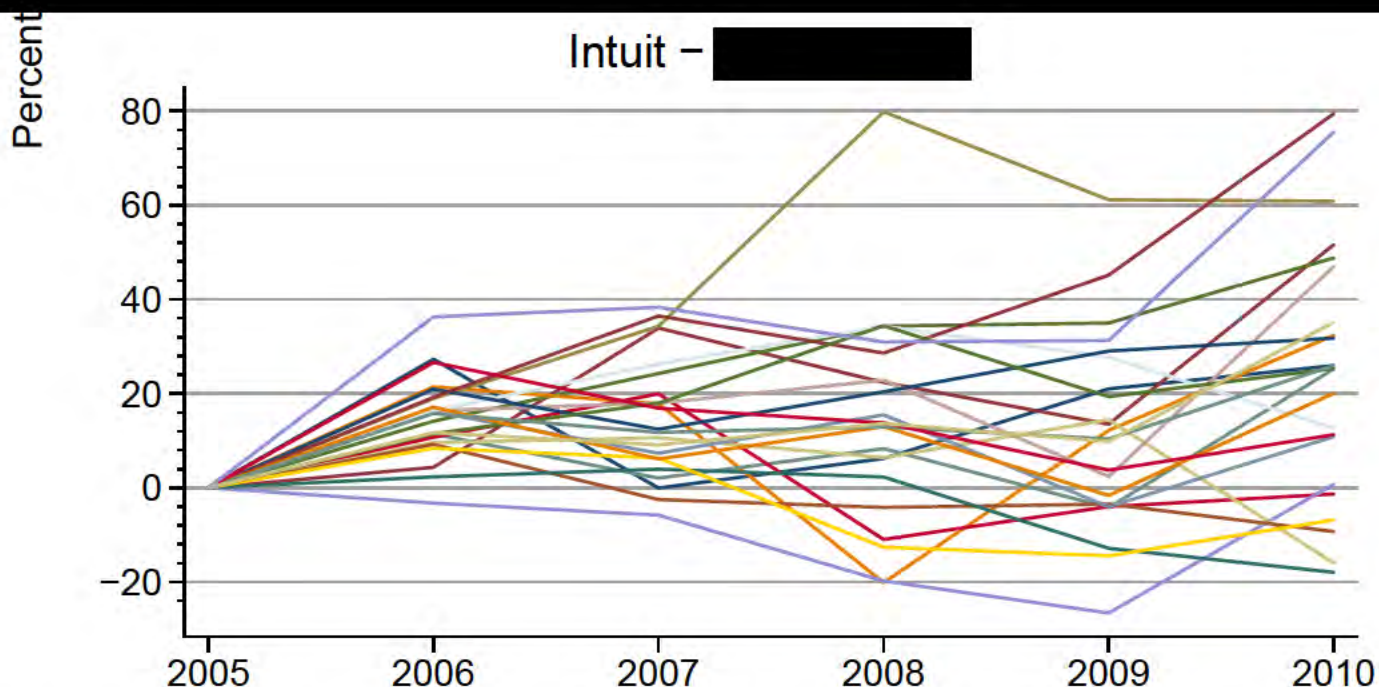
[1] Each line represents the cumulative compensation change for an individual employee.

[2] Data are restricted to those employees who remained in RD class positions through 2010. I then selected from each Defendant the job title that included 25 employees (or the closest number to 25).

Source: Dr. Leamer's backup data and materials.

Exhibit 1 Intel & Intuit

There is Substantial Variation in the Cumulative Change in Total Compensation Among Employees with the Same 2005 Job



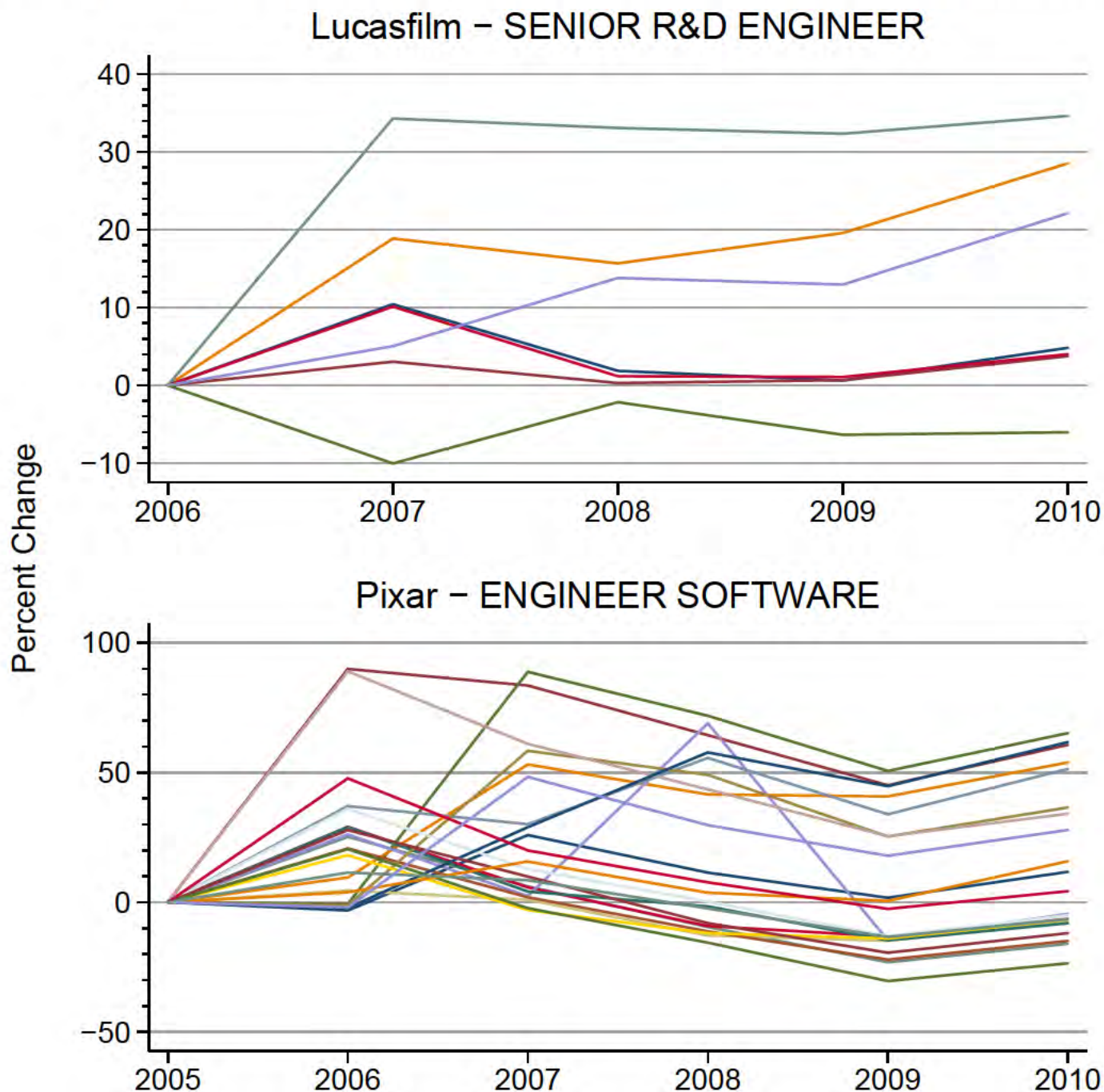
Notes:

- [1] Each line represents the cumulative compensation change for an individual employee.
- [2] Data are restricted to those employees who remained in RD class positions through 2010. I then selected from each Defendant the job title that included 25 employees (or the closest number to 25).

Source: Dr. Leamer's backup data and materials.

Exhibit 1 Lucasfilm & Pixar

There is Substantial Variation in the Cumulative Change in Total Compensation Among Employees with the Same 2005 Job



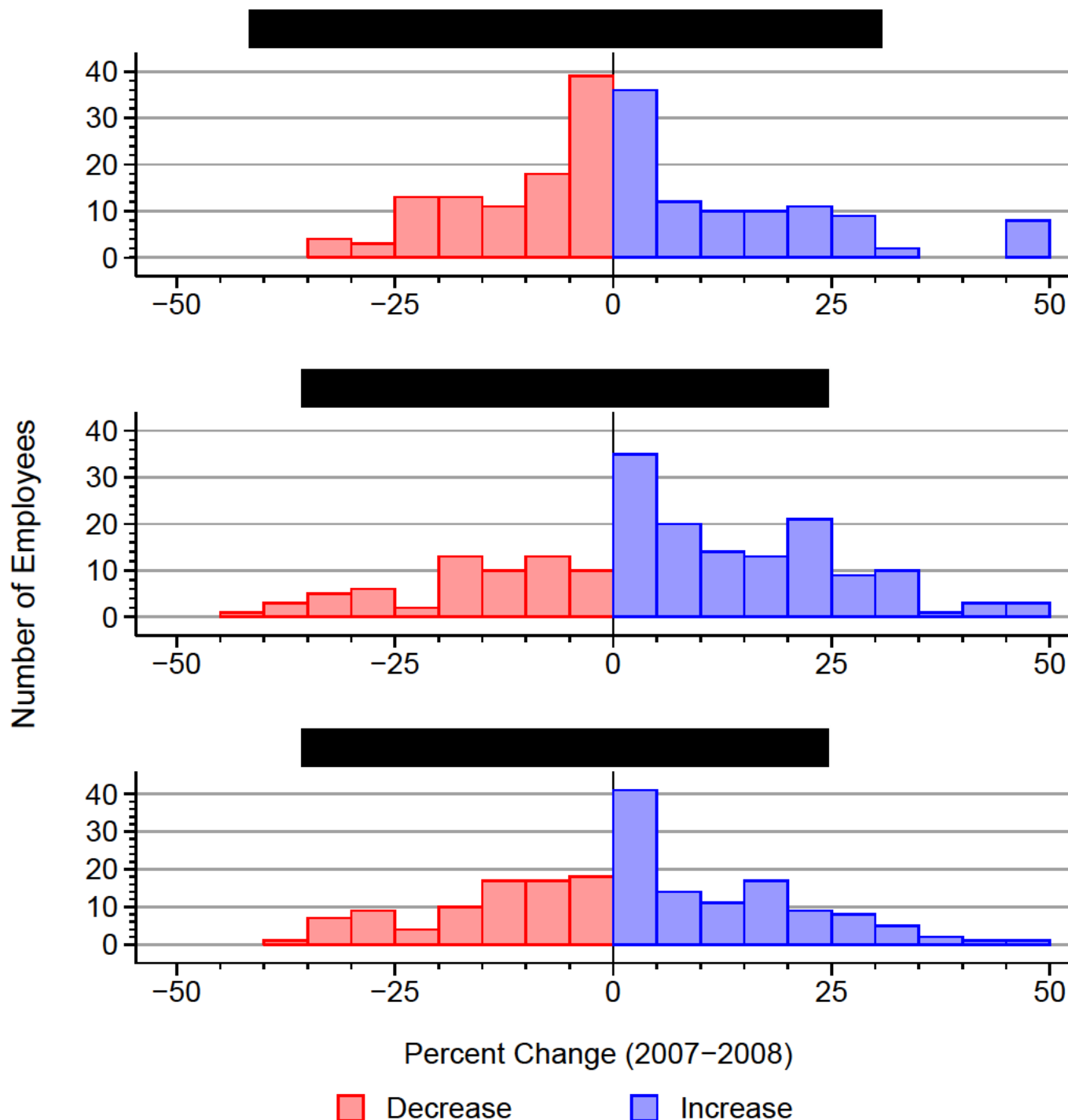
Notes:

- [1] Each line represents the cumulative compensation change for an individual employee.
- [2] Data are restricted to those employees who remained in RD class positions through 2010. I then selected from each Defendant the job title that included 25 employees (or the closest number to 25).
- [3] The Lucasfilm chart begins in 2006, which is the first year for which I have data on Lucasfilm job titles.

Source: Dr. Leamer's backup data and materials.

Exhibit 2 Adobe

There is Substantial Variation in Total Compensation Changes Among Employees in the Same Job in 2007



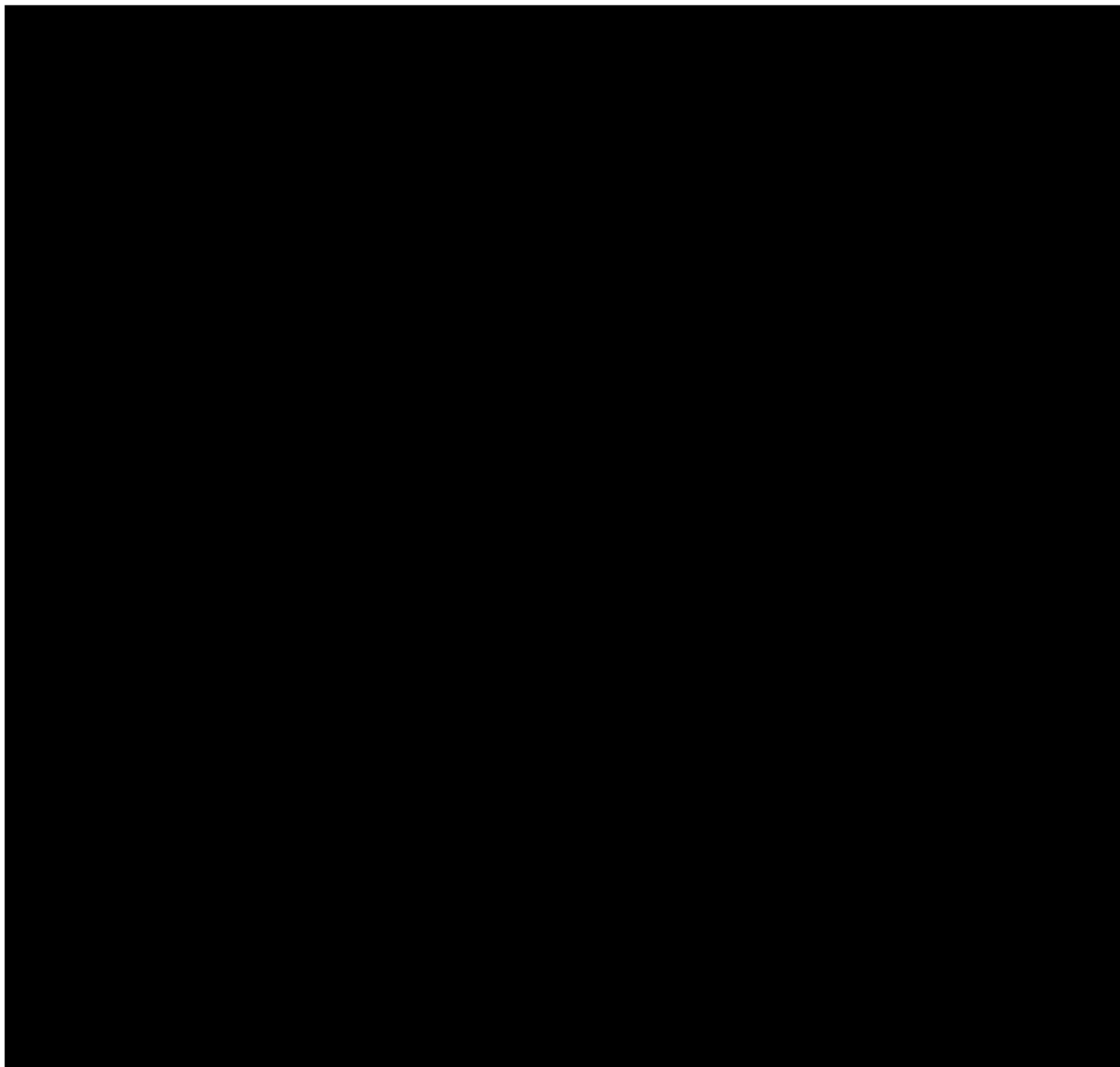
Notes:

- [1] The top 3 Adobe jobs by 2007 employment are shown. See Appendix B for additional jobs and years.
- [2] Some large positive and large negative changes may be capped at +/-50 percent for ease of display.

Source: Dr. Leamer's backup data and materials.

Exhibit 2 Apple

There is Substantial Variation in Total Compensation Changes Among Employees in the Same Job in 2007



Decrease



Increase

Notes:

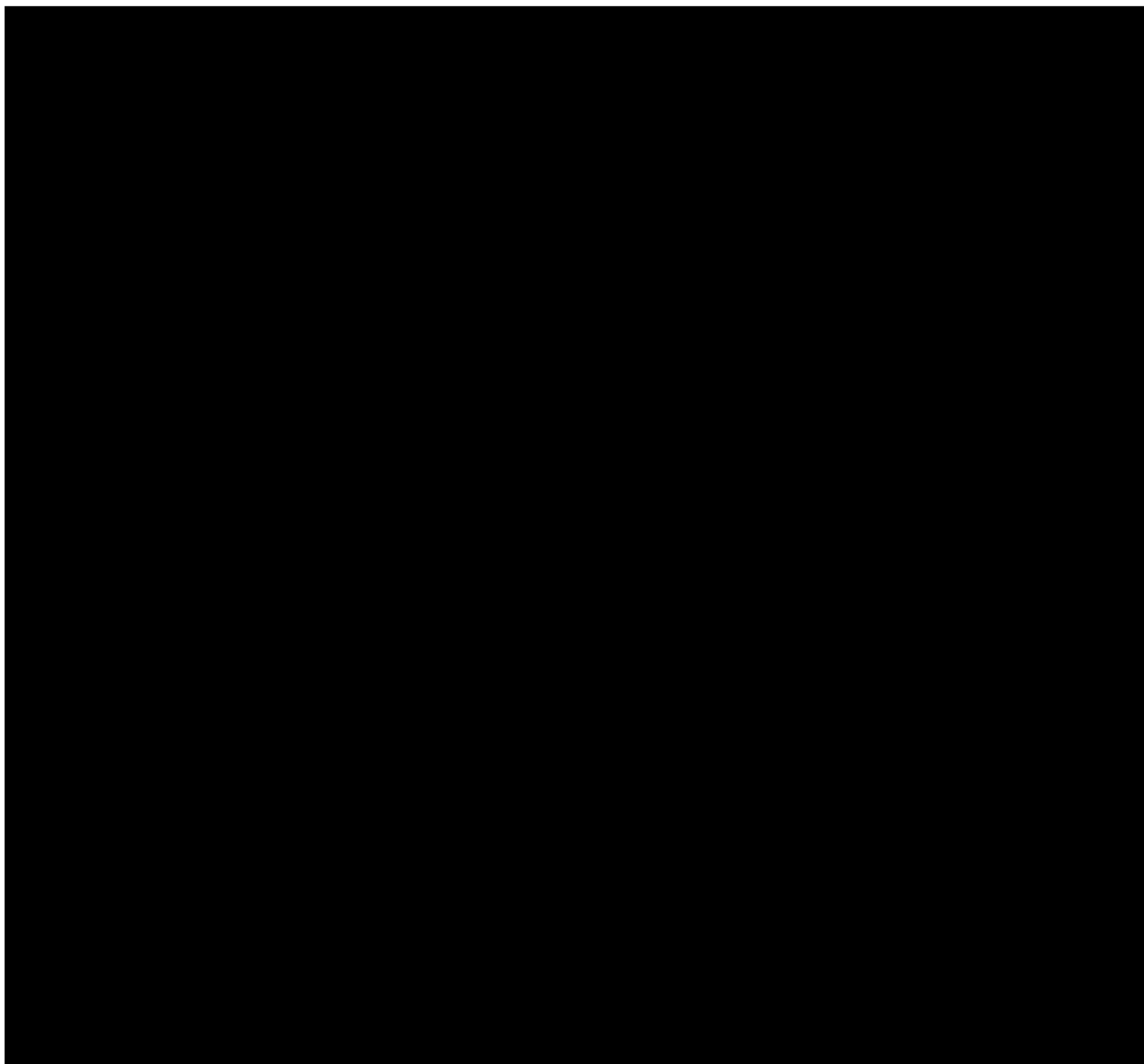
[1] The top 3 Apple jobs by 2007 employment are shown. See Appendix B for additional jobs and years.

[2] Some large positive and large negative changes may be capped at +/-75 percent for ease of display.

Source: Dr. Leamer's backup data and materials.

Exhibit 2 Google

There is Substantial Variation in Total Compensation Changes Among Employees in the Same Job in 2007



Decrease



Increase

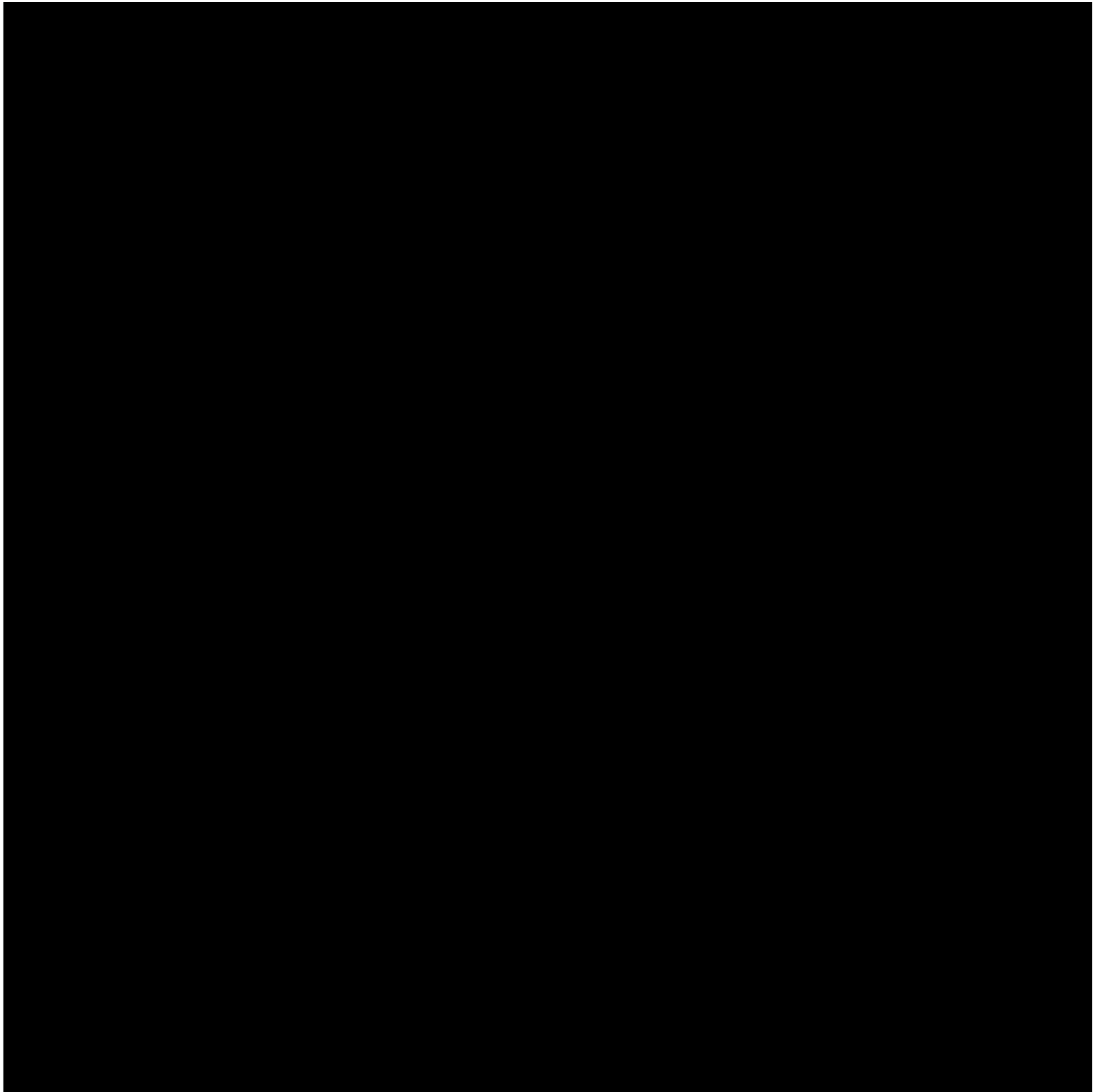
Notes:

- [1] The top 3 Google jobs by 2007 employment are shown. See Appendix B for additional jobs and years.
- [2] Some large positive and large negative changes may be capped at +/-75 percent for ease of display.

Source: Dr. Leamer's backup data and materials.

Exhibit 2 Intel

There is Substantial Variation in Total Compensation Changes Among Employees in the Same Job in 2007



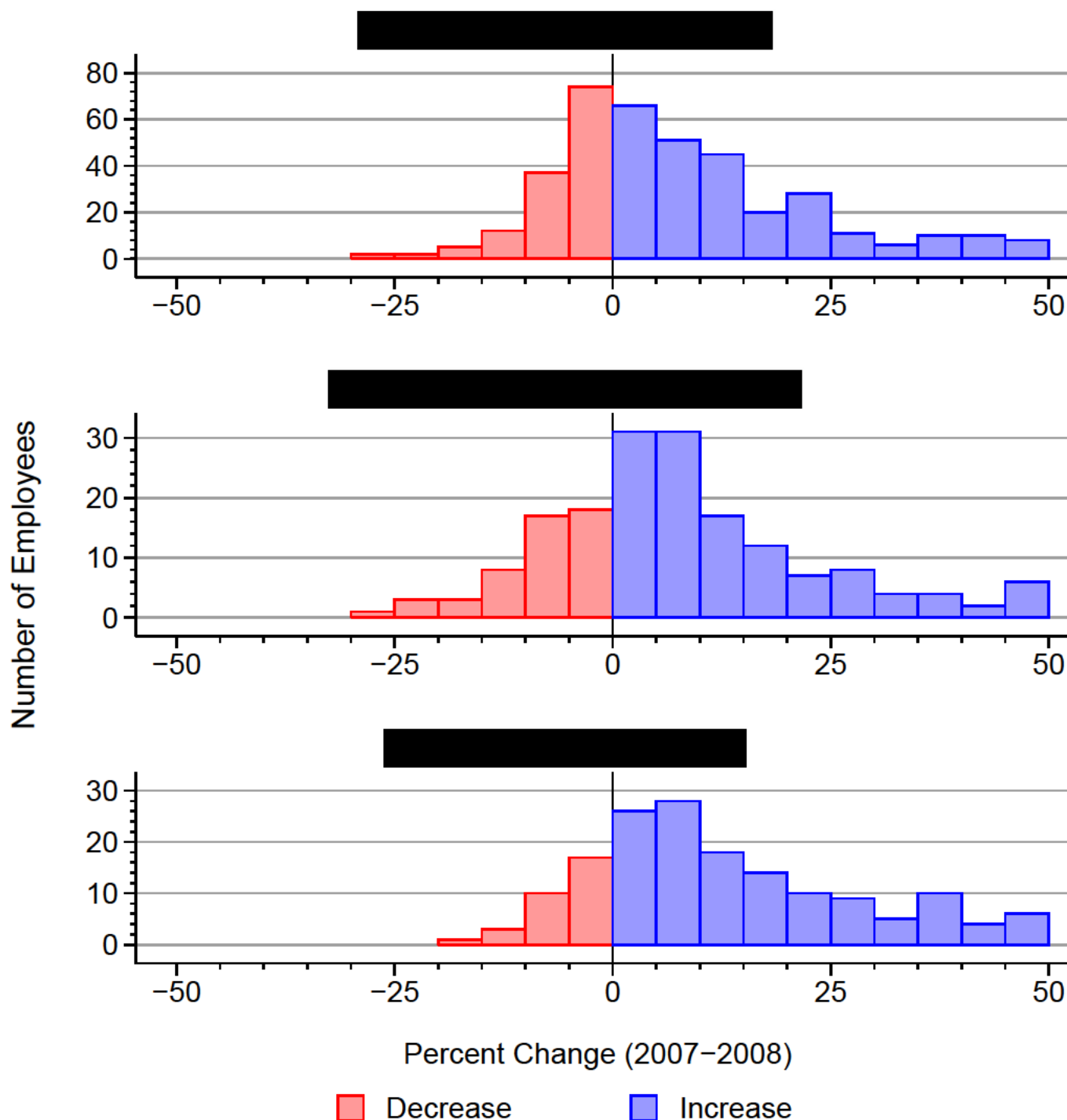
Notes:

- [1] The top 3 Intel jobs by 2007 employment are shown. See Appendix B for additional jobs and years.
- [2] Some large positive and large negative changes may be capped at +/-50 percent for ease of display.

Source: Dr. Leamer's backup data and materials.

Exhibit 2 Intuit

There is Substantial Variation in Total Compensation Changes Among Employees in the Same Job in 2007



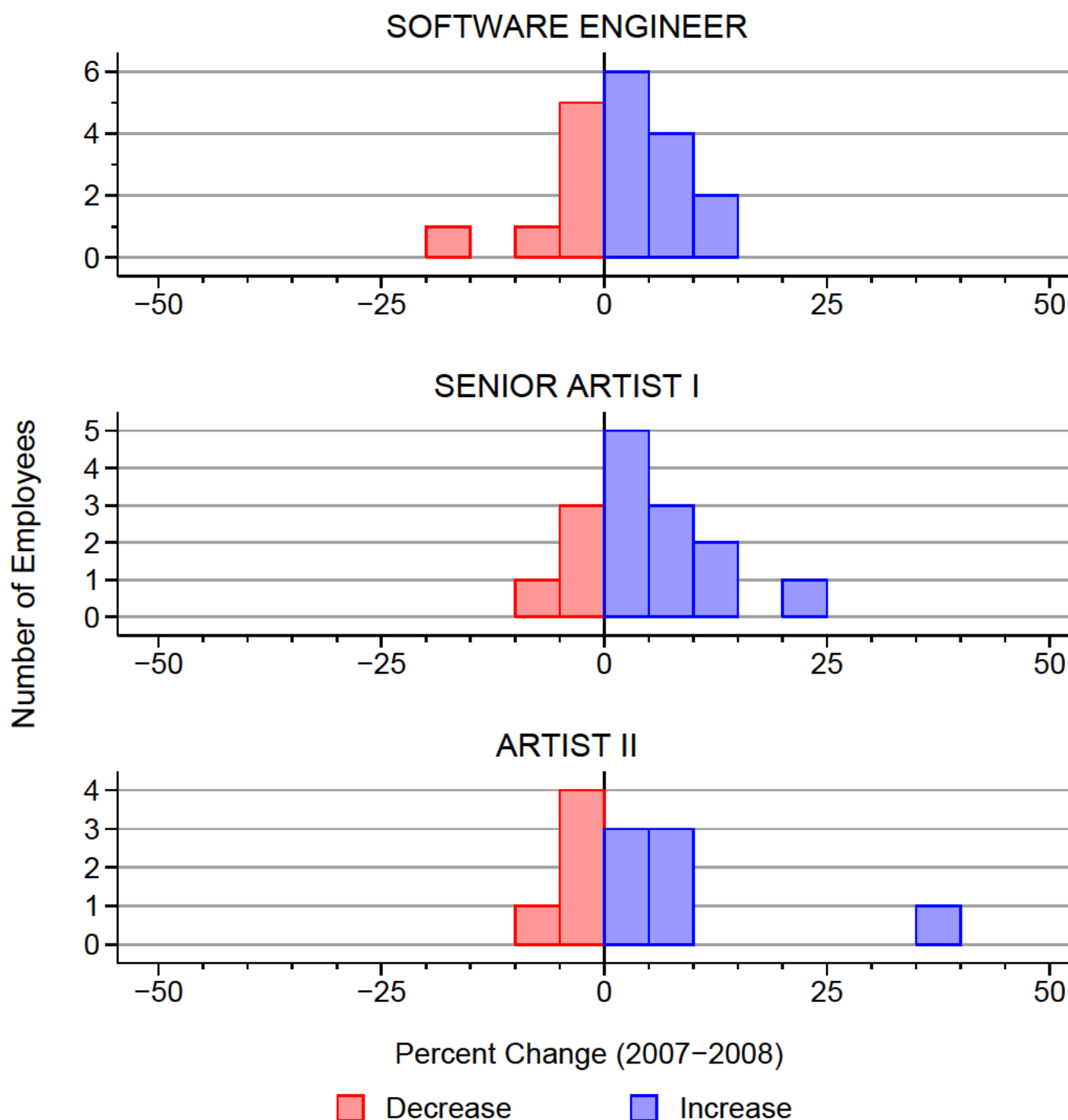
Notes:

- [1] The top 3 Intuit jobs by 2007 employment are shown. See Appendix B for additional jobs and years.
 [2] Some large positive and large negative changes may be capped at +/-50 percent for ease of display.

Source: Dr. Leamer's backup data and materials.

Exhibit 2 Lucasfilm

There is Substantial Variation in Total Compensation Changes Among Employees in the Same Job in 2007



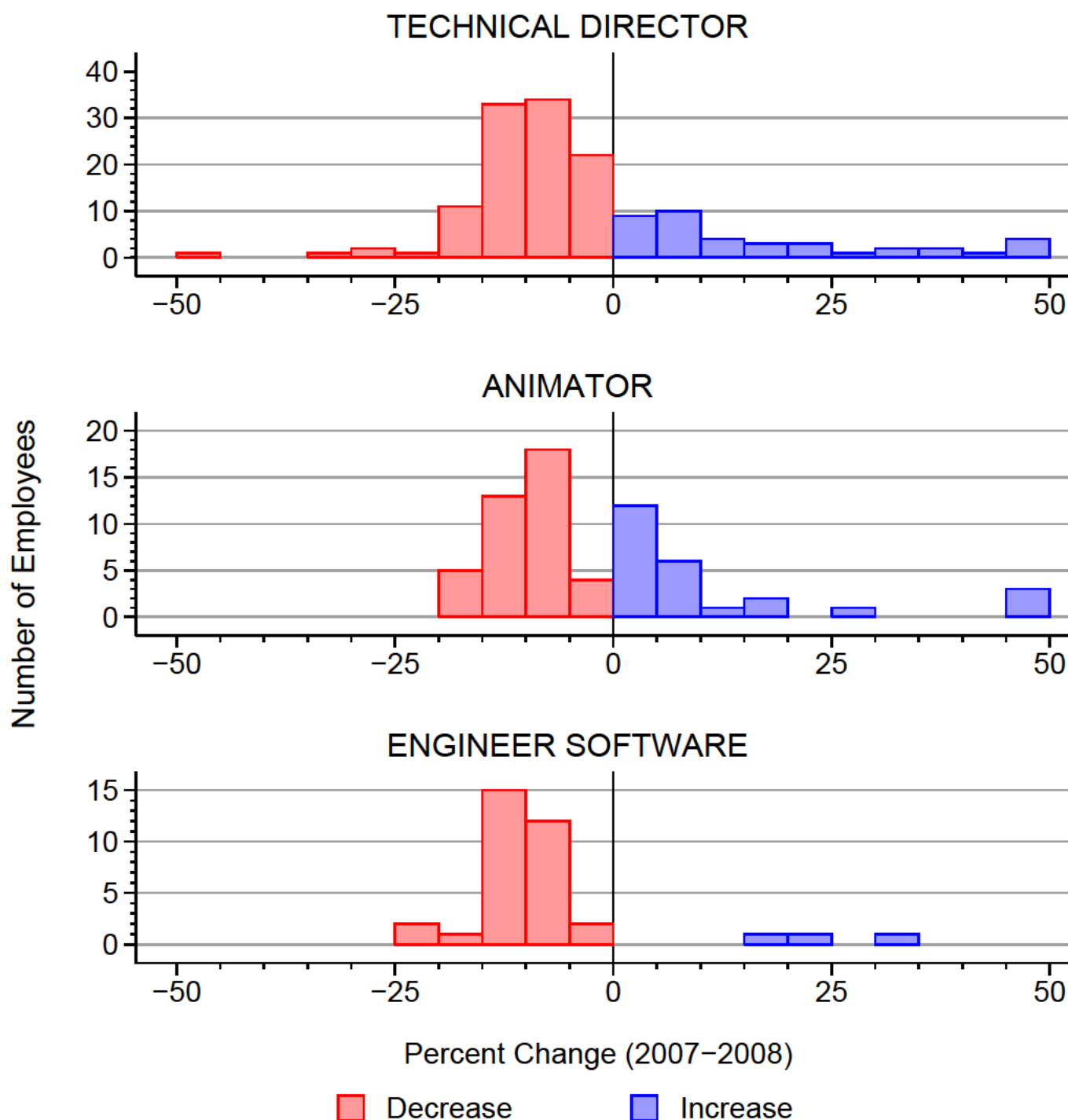
Notes:

- [1] The top 3 Lucasfilm jobs by 2007 employment are shown. See Appendix B for additional jobs and years.
 [2] Some large positive and large negative changes may be capped at +/-50 percent for ease of display.

Source: Dr. Leamer's backup data and materials.

Exhibit 2 Pixar

There is Substantial Variation in Total Compensation Changes Among Employees in the Same Job in 2007



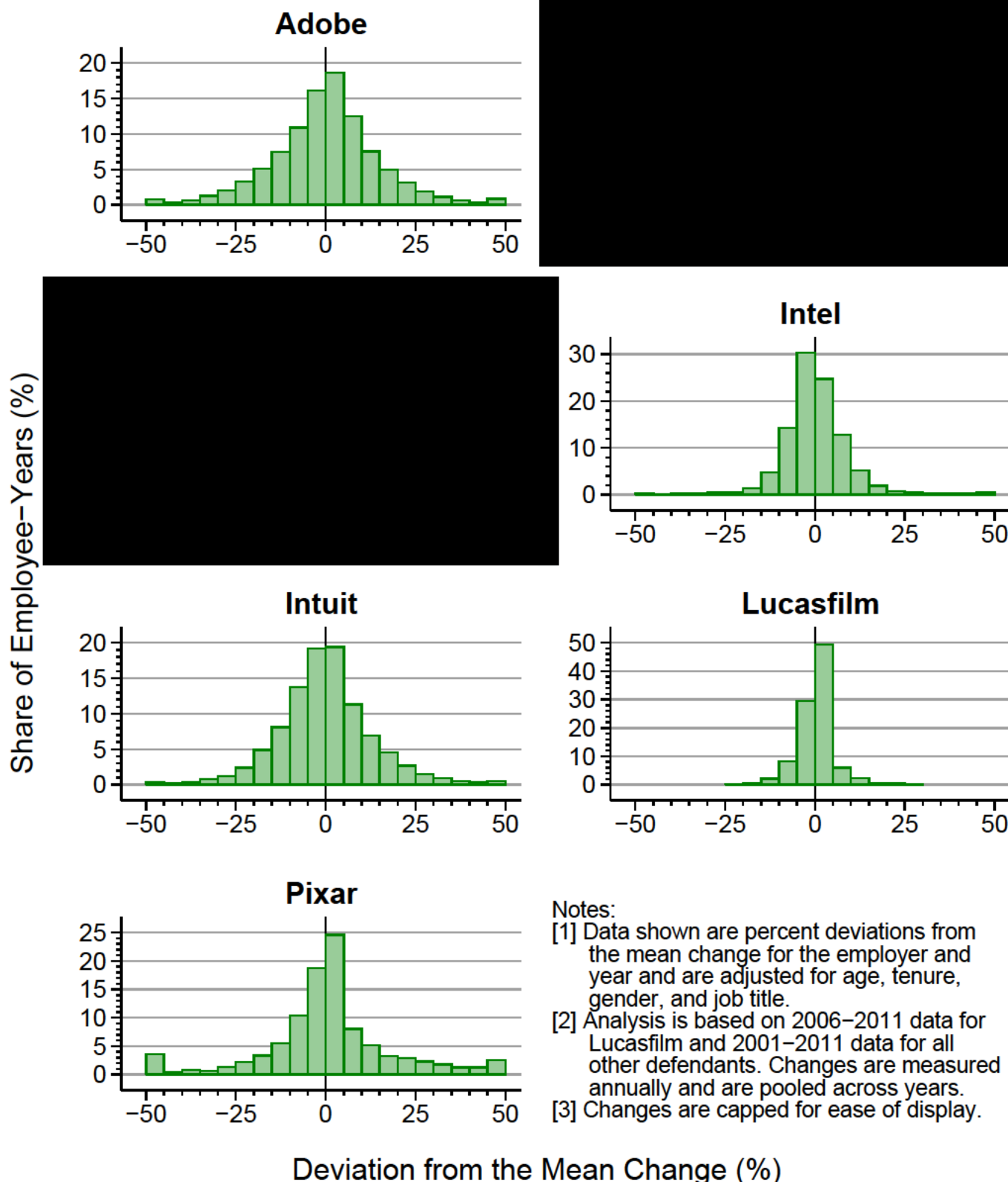
Notes:

- [1] The top 3 Pixar jobs by 2007 employment are shown. See Appendix B for additional jobs and years.
- [2] Some large positive and large negative changes may be capped at +/-50 percent for ease of display.

Source: Dr. Leamer's backup data and materials.

Exhibit 3

There is Substantial Variation in Changes in Employee Total Compensation (Adjusted for Individual Characteristics and Job)



Source: Dr. Leamer's backup data and materials.

Exhibit 4

There Are Large Differences in Compensation Changes Between the Employees with the Lowest Changes and Those with the Highest

Employer	Percent Deviation from Mean Compensation Change			
	Bottom Decile	Bottom Quartile	Top Quartile	Top Decile
Adobe	-29%	-19%	19%	29%
██████	██████	██████	██████	██████
Google	-72%	-44%	47%	78%
Intel	-17%	-11%	11%	19%
Intuit	-24%	-16%	17%	26%
Lucasfilm	-9%	-5%	6%	10%
Pixar	-45%	-25%	25%	42%

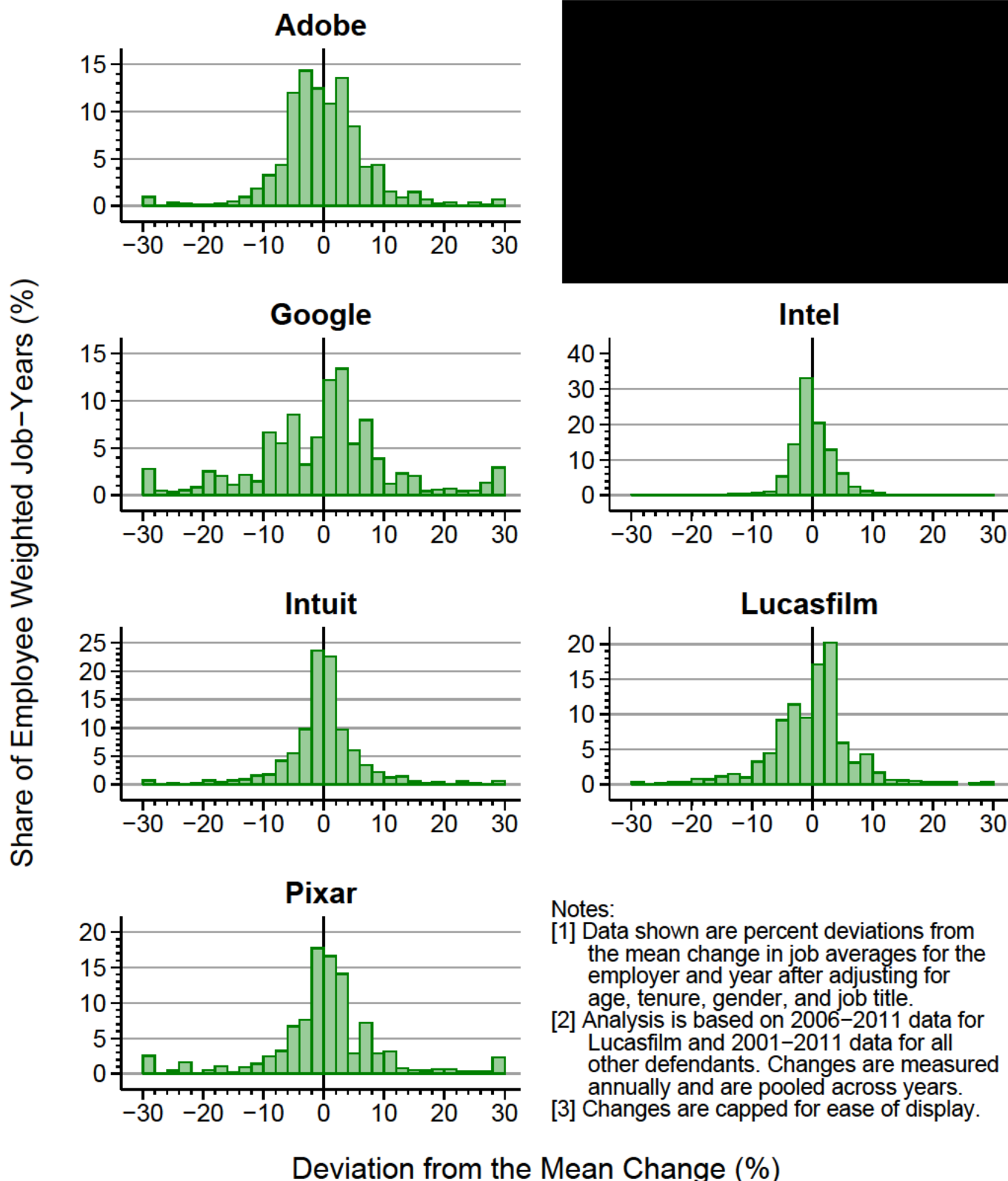
Notes:

- [1] Data shown are percent deviations from the average change for the employer and year after adjusting for age, tenure, gender, and job title.
- [2] Percent deviations shown are averages within each decile or quartile.
- [3] Analysis is based on 2006-2011 data for Lucasfilm and 2001-2011 data for other defendants.
- [4] Deciles and quartiles are based on the share of employee years at each defendant.

Source: Dr. Leamer's backup data and materials.

Exhibit 5

There is Substantial Variation in Changes in Job Average Total Compensation (Adjusted for Individual Characteristics and Job)



Source: Dr. Leamer's backup data and materials.

Exhibit 6

There Are Large Differences in the Changes in Average Compensation Between Jobs with the Lowest Changes and Those with the Highest

Employer	Percent Deviation from Mean Change in Job Average			
	Bottom Decile	Bottom Quartile	Top Quartile	Top Decile
Adobe	-15%	-9%	10%	16%
Google	-29%	-19%	16%	29%
Intel	-6%	-4%	5%	7%
Intuit	-14%	-8%	8%	14%
Lucasfilm	-14%	-9%	8%	13%
Pixar	-27%	-14%	13%	23%

Notes:

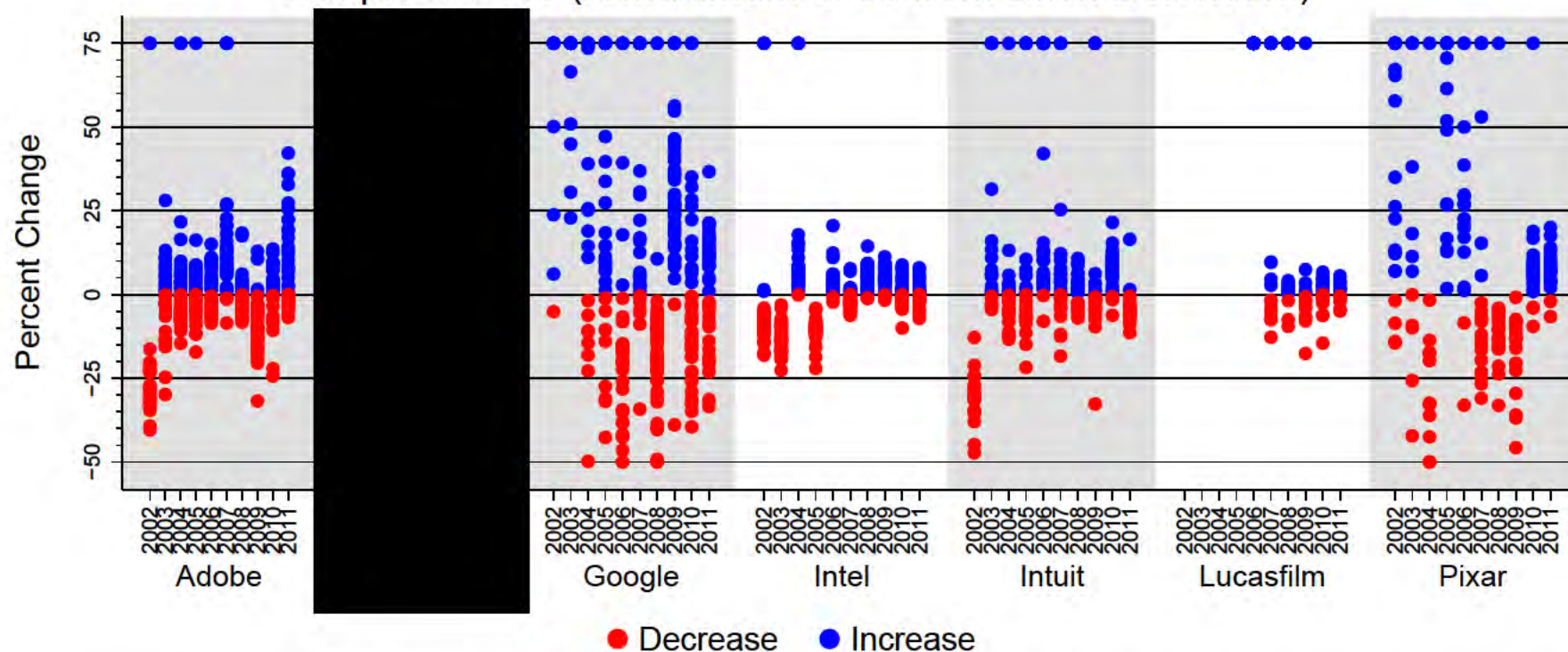
- [1] Data shown are percent deviations from the mean change (weighted by employees) in job averages for the employer and year after adjusting for age, tenure, gender, and job title.
- [2] Percent deviations shown are averages within each decile or quartile.
- [3] Analysis is based on 2006 - 2011 data for Lucasfilm and 2001 - 2011 data for all other defendants.
- [4] Deciles and quartiles are based on the share of employee weighted job-years at each defendant.

Source: Dr. Leamer's backup data and materials.

Exhibit 7

There is Substantial Variation in Annual Changes in Job Average Total Compensation at Each Defendant

Sample of Jobs (A Maximum of 50 from Each Defendant)



Notes:

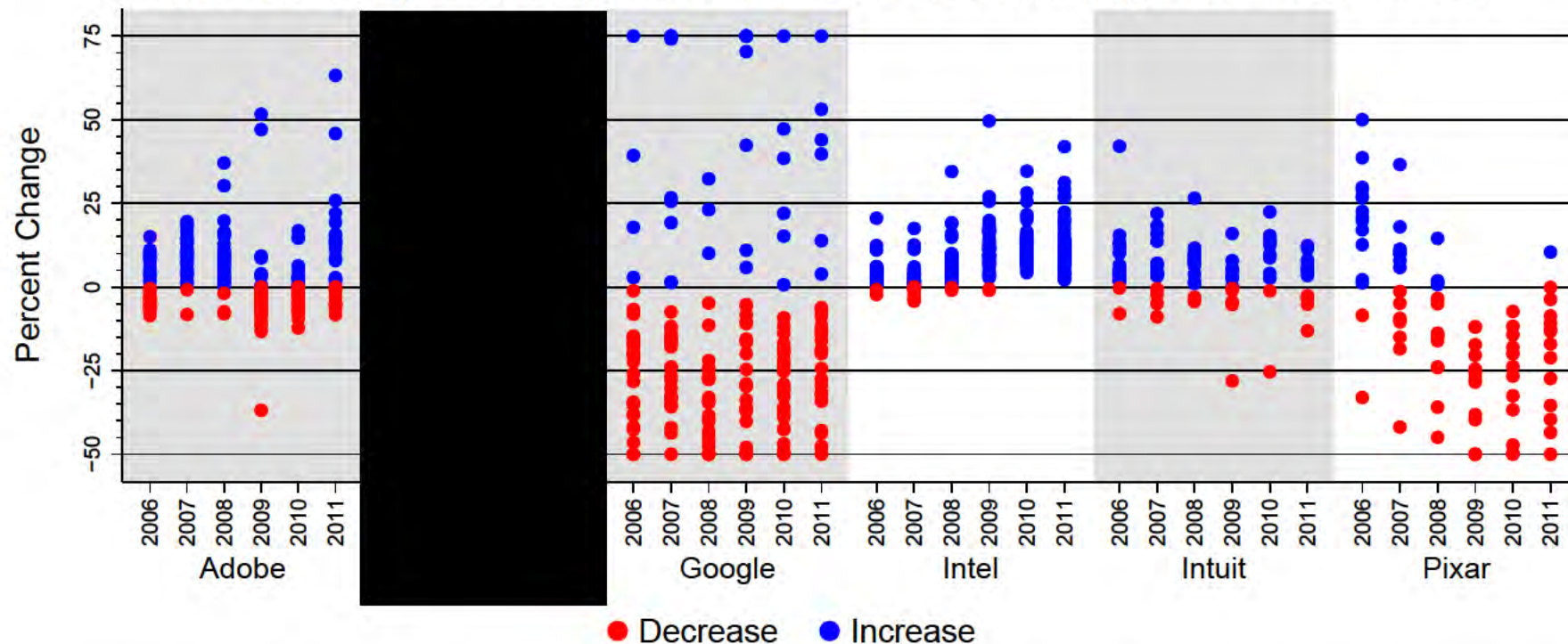
- [1] Each dot represents the percent change in the average real total compensation for a given job from the previous year to the current year.
- [2] The jobs selected are the five largest jobs (based on 2001–2011 employment) from each decile in Figures 9–12 of Dr. Leamer’s Supplemental Report. If there are fewer than five jobs in any decile, then the next largest jobs across all deciles are included to reach 50. In addition, I require that the average number of employees in the job across the two years over which I calculate the compensation change to be at least five.
- [3] Annual changes are capped at –50 and +75 percent.
- [4] Lucasfilm data are missing job titles prior to 2006.

Source: Dr. Leamer’s backup data and materials.

Exhibit 8

There is Substantial Variation in Cumulative Changes in Job Average Total Compensation at Each Defendant

Sample of Jobs (A Maximum of 50 from Each Defendant), Base Year = 2005



Notes:

- [1] Each dot represents the percent change in the average real total compensation for a given job from the previous year to the current year.
- [2] The jobs selected are the five largest jobs (based on 2001–2011 employment) from each decile in Figures 9–12 of Dr. Leamer's Supplemental Report. If there are fewer than five jobs in any decile, then the next largest jobs across all deciles are included to reach 50. In addition, I require that the average number of employees in the job across the two years over which I calculate the compensation change to be at least five.
- [3] Cumulative changes are capped at –50 and +75 percent.
- [4] Lucasfilm is excluded because its data are missing job titles prior to 2006.

Source: Dr. Leamer's backup data and materials.

Exhibit 9

"Reversion to the Mean" Implies Negative Relationship Between Expected Compensation Change and Lagged Compensation Level

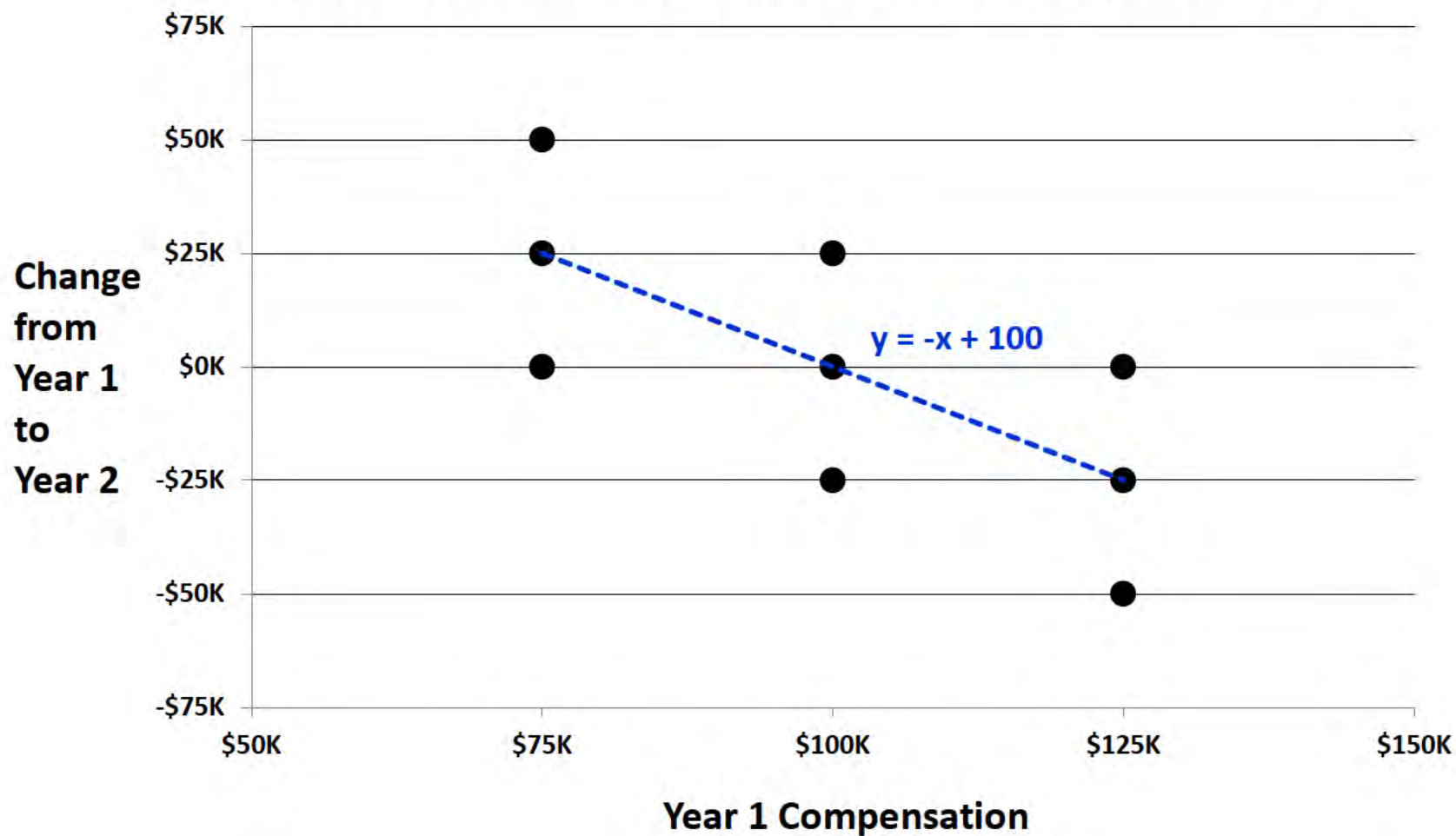


Exhibit 10

Dr. Leamer's Regression Model Does Not Establish "Sharing" or "Catch-Up" between Jobs

Panel A: Leamer Model Using Defendants' Data

Number of Job Titles 889

Dependent Variable

DLog(Title Average Annual Total Compensation)

"Contemporaneous Effect Variable"

DLog(R&D Average Annual Total Compensation)

"Lagged Effect Variable"

Log(R&D Avg Annual Total Comp (-1) /
Title Avg Annual Total Compensation (-1))

"External Forces Variables"

Log(Firm Revenue Per Employee (-1) /
Title Avg Annual Total Compensation (-1))

DLog(San-Jose Information Sector Employment)

Coefficient Estimate

0.72

0.41

0.12

-0.20

Panel B: Leamer Model Using U.S. Economy-Wide Data (ACS)

Number of U.S. Occupations 465

Dependent Variable

DLog(Occupation Average Annual Wage)

"Contemporaneous Effect Variable"

Dlog(U.S. Average Annual Wage)

"Lagged Effect Variable"

Log(U.S. Avg Annual Wage (-1) /
Occupation Avg Annual Wage (-1))

"External Forces Variables"

Log(U.S. Real GDP per Worker (-1) /
Occupation Avg Annual Wage (-1))

DLog(U.S. Total Employment)

Coefficient Estimate

1.09

1.32

-0.14

0.03

Notes: Coefficient estimates shown are weighted averages across regressions for all job titles or occupations.

Source: Panel A is based on Leamer Supplemental Report Exhibits 1 and 2. Panel B is based on data from the following public sources:

American Community Surveys (ACS), 2001-2010: Steven Ruggles, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, Matthew Sobek.

Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database]. Minneapolis: University of Minnesota, 2010, <https://usa.ipums.org>.

U.S. Real GDP (GDPC1): U.S. Department of Commerce Bureau of Economic Analysis. U.S. Total Employment (LNU02000000): U.S. Department of Labor Bureau of Labor Statistics.

Exhibit 11

Dr. Leamer's Decile-Based Regressions Do Not Establish "Sharing" or "Catch-Up" between Jobs

Panel A: Leamer Model Using Defendants' Data

Decile	Regression Coefficient Estimates			
	"Contemporaneous Sharing"	"Catch-Up"	"External Variable 1" (Firm Revenue)	"External Variable 2" (San Jose IT Employment)
1	0.60	0.37	-0.27	0.19
2	0.55	0.28	-0.09	-0.07
3	0.71	0.40	-0.18	0.13
4	0.58	0.20	0.01	0.05
5	0.73	0.24	0.04	0.04
6	0.66	0.36	0.12	-0.36
7	0.75	0.33	-0.02	-0.07
8	0.71	0.36	0.29	-0.52
9	0.85	0.47	0.15	-0.18
10	1.13	0.04	0.61	-0.37
Average:	0.73	0.31	0.07	-0.12

Panel B: Leamer Model Using U.S. Economy-Wide Data (ACS)

Decile	Regression Coefficient Estimates			
	"Contemporaneous Sharing"	"Catch-Up"	"External Variable 1" (U.S. GDP)	"External Variable 2" (U.S. Employment)
1	1.36	1.54	-0.48	0.10
2	0.94	1.12	-0.36	-0.28
3	0.85	0.85	-0.12	-0.36
4	1.18	1.74	-0.34	0.16
5	0.86	1.35	-0.21	0.00
6	0.81	0.62	-0.10	-0.25
7	0.84	1.16	0.19	-0.17
8	1.02	0.91	0.15	0.31
9	1.56	0.37	0.36	-0.57
10	0.57	0.92	0.54	-0.02
Average:	1.00	1.06	-0.04	-0.11

Notes: Estimates shown in Panel A are weighted averages across defendants. Deciles in Panel B are defined according to a similar methodology as Dr. Leamer's decile-based analyses, using U.S. occupation's overall average real wage and employment.

Source: Panel A is based on Dr. Leamer's backup materials for Leamer Supplemental Report Figures 9 to 12. Panel B is based on data from the following public sources:

American Community Surveys (ACS), 2001-2010: Steven Ruggles, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, Matthew Sobek.

Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database]. Minneapolis: University of Minnesota, 2010, <https://usa.ipums.org>.

U.S. Real GDP (GDPC1): U.S. Department of Commerce Bureau of Economic Analysis. U.S. Total Employment (LNU02000000): U.S. Department of Labor Bureau of Labor Statistics.

Exhibit 12

Dr. Leamer's Interpretation of His Regression Results Would Imply that Changes in Chicago Temperature Can be Explained by "Sharing" or "Catch-Up" with Milwaukee Temperature (and Vice Versa)

(Chicago and Milwaukee Daily Temperature Data - January 1995 to May 2013)

Dependent Variable: Change in Chicago Temperature

Variable	Model 1	Model 2	Model 3
	Coefficient Estimates		
Change in Milwaukee Temperature	0.94		0.93
Lagged Difference in Temperature (Milwaukee minus Chicago)	0.48		0.56
January		-0.20	0.64
February		0.27	0.91
March		0.45	1.51
April		0.28	1.96
May		0.37	2.20
June		0.19	1.76
July		0.11	1.38
August		-0.17	0.99
September		-0.40	0.77
October		-0.30	0.69
November		-0.43	0.68
December		-0.20	0.55
Constant	Yes	No	No
R-Squared	0.89	0.00	0.89
Number of Observations	6,633	6,692	6,633

Dependent Variable: Change in Milwaukee Temperature

Variable	Model 1	Model 2	Model 3
	Coefficient Estimates		
Change in Chicago Temperature	0.94		0.95
Lagged Difference in Temperature (Chicago minus Milwaukee)	0.46		0.54
January		-0.19	-0.64
February		0.25	-0.85
March		0.34	-1.42
April		0.27	-1.86
May		0.37	-2.08
June		0.26	-1.67
July		0.11	-1.32
August		-0.19	-0.98
September		-0.38	-0.79
October		-0.31	-0.70
November		-0.44	-0.70
December		-0.18	-0.56
Constant	Yes	No	No
R-Squared	0.88	0.00	0.89
Number of Observations	6,633	6,637	6,633

Source: <http://academic.udayton.edu/kissock/http/Weather/citylistUS.htm>.